CITY OF BIG BEAR LAKE

GENERAL PLAN

Adopted by City Council
Resolution No. 99-36
August 23, 1999

CITY OF BIG BEAR LAKE

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INTRODUCTION

INTRODUCTION

OVERVIEW OF THE CITY OF BIG BEAR LAKE

The City of Big Bear Lake is a mountain resort community located in the southwestern portion of San Bernardino County approximately 100 miles northeast of Los Angeles and 40 miles northeast of the City of San Bernardino (See Exhibit I-1). The City encompasses almost seven square miles and is approximately seven miles long and two miles wide at its maximum extent. The City adjoins Big Bear Lake, a 3000-acre lake which serves as a reservoir for downstream users and provides recreational opportunities for visitors and residents. To the south and west, the City is bordered by the San Bernardino National Forest, managed by the United States Forest Service. To the east lies the unincorporated community of Big Bear City.

The Big Bear Valley was settled in the 1860's following the discovery of gold in the area. In 1884, Big Bear Lake was formed with the construction of a dam to provide irrigation waters to the San Bernardino Valley. By the 1920's recreation was the most important economic factor in the valley. In 1977, the Municipal Water District assumed control of the lake, altering its primary purpose from irrigation to water recreation. The City of Big Bear Lake was incorporated in 1980 and became a charter city in 1983.

The City is a four-season resort community with a permanent population of approximately 6,000 residents, with vacation residences and lodging facilities which accommodate a substantially larger population of visitors. The local economy is primarily based on tourism, with the summer and winter months being the most heavily visited seasons. Temperatures range from an average of 30 degrees in the winter to highs of 80 to 90 degrees during summer months. Winter conditions support skiing, snowboarding and other winter recreational uses. In the summer, water sports, camping and hiking are popular visitor activities.

Big Bear Lake is located at the base of a north-facing slope at an elevation of approximately 6,800 feet. The surrounding mountains rise to approximately 7,800 to 8,600 feet along the ridge to the south of the City. The City is traversed by several intermittent drainage courses from these slopes. The physical environment of the lake and surrounding mountains provides an attractive setting that supports the community's visitor-based economy. The natural forest surrounding the City is an important aspect of the City's appeal to tourists, and fishing and boating on Big Bear Lake provide additional recreational opportunities.

The City is built predominantly on alluvial deposits and older sedimentary deposits. Although no known active faults pass through the City, the City is located in a seismically active region and has been subject to strong ground shaking from earthquakes.

Exhibit I-1
Location and Setting

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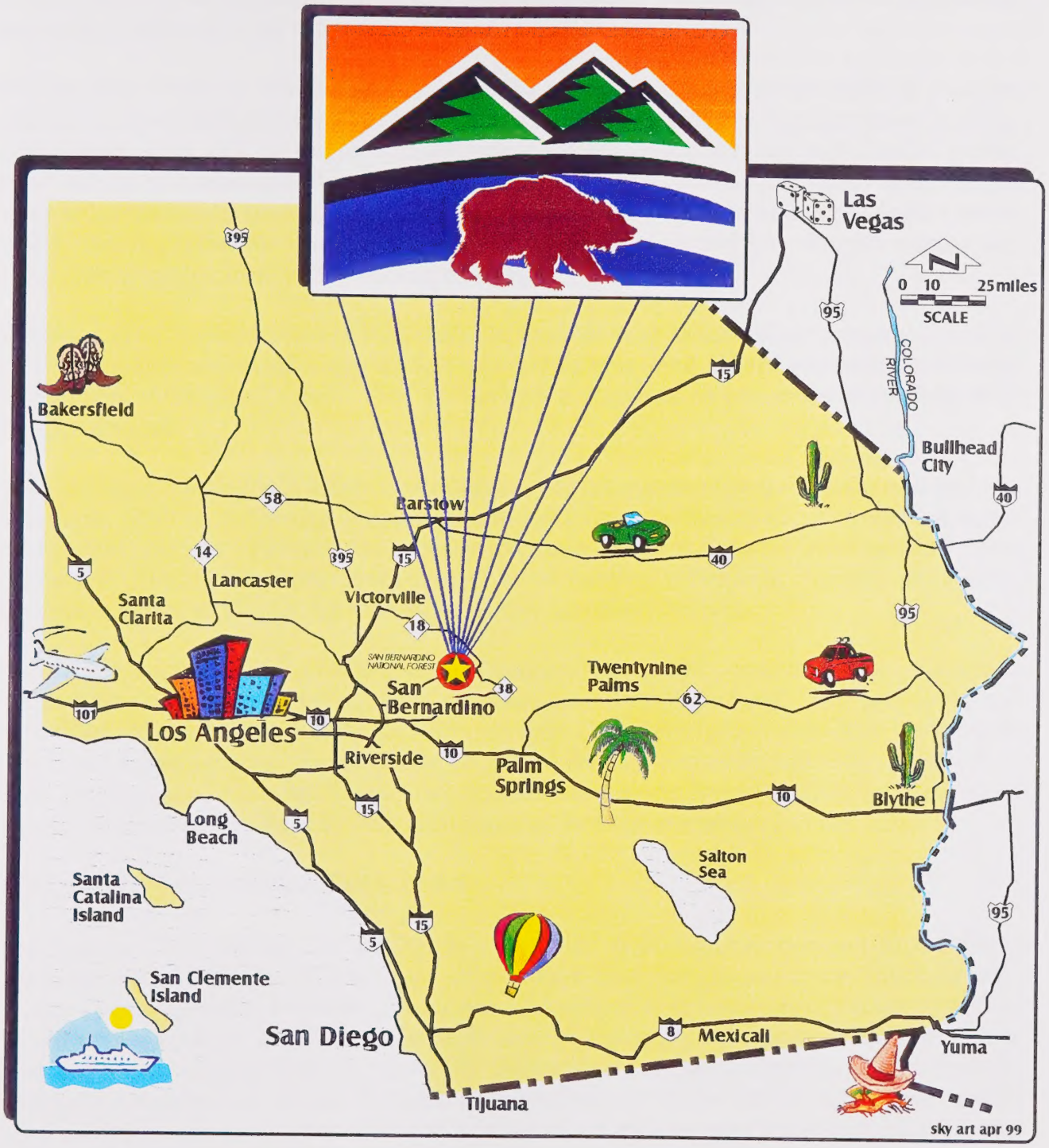
Location and Setting



CITY OF BIG BEAR LAKE

Big Bear Lake is located at the edge of the South Coast Air Basin, and although air quality is generally good, it is affected by pollution transported from the more urbanized areas of the air basin. Local pollution sources include particulates from wood smoke and unimproved roads, and carbon monoxide from automobile exhaust.

The Big Bear Valley's latitude, elevation, rainfall and other climatic factors make it a unique ecosystem which provides the habitat for several plant species which are found nowhere else. The local climate, soils, geology and topography have combined in certain locations to create a "pebble plain" habitat of treeless islands where vegetation includes low-growing perennial plants. Vernal meadow habitat also remains in a few locations throughout the City. The density of sensitive plants in Big Bear is greater than that in any other area of California. In addition, the area is home to a population of approximately 30 wintering bald eagles.

Big Bear Lake is a charter city operating under the council-manager form of government. Five City Council members are elected at large for four-year overlapping terms. The Mayor is chosen annually by members of the City Council. The City Manager is appointed by and serves at the pleasure of the City Council.

The Planning Commission is a five member advisory body, appointed by the City Council for four-year terms. The City's Planning Division provides staff support to the Planning Commission, under the direction of the City Planner. Development proposals are reviewed by the Development Review Committee (DRC), comprised of representatives of the City's Planning, Building and Safety, Engineering, Fire and Water departments, and other agencies as needed.

The City of Big Bear Lake provides general administrative services, community development and public works functions, including street maintenance and snow plowing. Fire prevention and protection are provided by a subsidiary district of the City, the Big Bear Lake Fire Department. Water and sewer services are provided by another of the City's subsidiary districts, the Big Bear Lake Department of Water and Power. Law enforcement services are provided by San Bernardino County under contract. The City also maintains a performing arts theater and film office.

OVERVIEW OF THE GENERAL PLAN

The General Plan for the City of Big Bear Lake has been prepared pursuant to California Government Code Section 65300 *et. seq.*, which requires that each city and county within the state "adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning." The General Plan and its various elements are required to function as an integrated, internally consistent and compatible statement of policies. State law also recognizes that special local conditions and circumstances must be accommodated, and that general plans can take differing forms while meeting the requirements of the law.

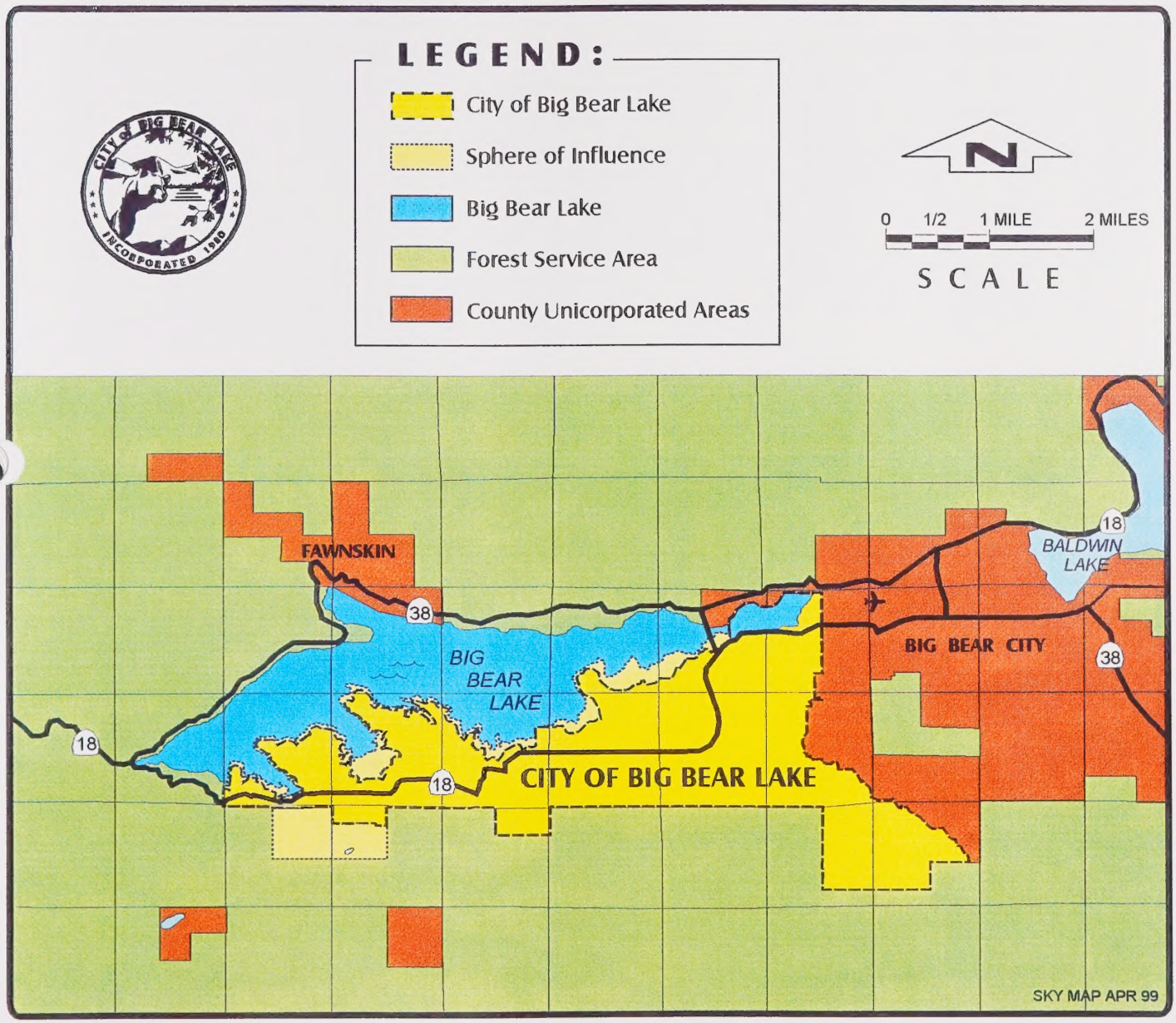
The General Plan serves as a foundation for making land use decisions based on goals and policies related to land use, transportation, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, public safety, infrastructure and other related physical, social and economic factors. In addition to serving as a basis for local decision making, the General Plan establishes a clear set of development guidelines for citizens, developers, neighboring jurisdictions and agencies, and provides the community with an opportunity to participate in the planning process. The purpose of this General Plan is to comply with state requirements and to provide the City with a comprehensive, long-range policy guideline for future development.

In accordance with California Government Code Section 65302, the General Plan must contain discussion in the following areas: land use, circulation, housing, conservation, open space, noise and safety. As of the date of its original adoption, this General Plan contained elements addressing all of these issues except for housing; it is the intent of the City to adopt a new housing element by June, 2000 in accordance with State law. In addition, the General Plan contains three optional elements: Public Services and Facilities; Open Space, Park and Recreation; and Community Design. The issues of conservation and open space have been addressed in the Environmental Resources Element and the Open Space, Recreation and Parks Element. Each of the elements contains maps and text setting forth goals, policies and programs for the long-range physical development within the City's planning area.

Development within the incorporated boundaries of the City will be directly guided by the goals and policies contained in the General Plan. As specified in State law, the General Plan must also address "any land outside its boundaries which...bears relation to its planning." Therefore, the term "planning area" in this document refers to the area encompassed within the incorporated limits of the City of Big Bear Lake, along with the adopted sphere of influence (see Exhibit I-2). This is the area over which the City of Big Bear Lake either has jurisdictional authority for land use planning and regulation, or where it can reasonably be expected to have such authority upon future annexation. For most of the elements of this General Plan, the background information, goals, policies and programs focus on the planning area as defined in this paragraph. In some instances, however, it is necessary to recognize regional conditions and facilities, and to plan for the City within a regional context. In these cases, the text may specify a larger area of concern, which may include the boundaries of special districts serving both the City and unincorporated areas, watersheds, or other features as noted in those sections.

This General Plan is organized into the following elements: Land Use; Circulation; Environmental Resources; Environmental Hazards; Noise; Public Services and Facilities; Open Space, Recreation and Parks; and Community Design. Within each element background material is provided which explains planning issues and opportunities, followed by broadly-stated goals which describe the end result to be reached through the related policies and programs. The policies set forth specific actions or performance standards for each element, and the programs provide the target time period and departments and divisions, in cooperation with other agencies, responsible for carrying out the action.

EXHIBIT I-2
Planning Area and Vicinity



CITY OF BIG BEAR LAKE

Exhibit I-2
Planning Area and Vicinity

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Official maps and graphics are incorporated into the General Plan to delineate land use and circulation patterns and areas of special environmental consideration, including biological and archaeological resources. Significant environmental hazard areas are also mapped. These official maps carry authority equal to the goals, policies and programs of the General Plan.

USING THE GENERAL PLAN

The General Plan is a comprehensive information and planning guide established pursuant to State law to provide a framework for making informed decisions about the future of the City. The General Plan and supporting environmental documentation identify concerns and issues important to the City, analyze them, and establish goals, policies and programs which resolve these issues. As such, the General Plan is the foundation upon which all land use decisions are to be based. The document should be used as the starting point for all land use decisions made in the community. Any proposal for development, whether initiated by a private or public entity, must be analyzed and tested for consistency with the goals, policies and programs of this General Plan. The City must assure and maintain consistency between this General Plan and adopted specific plans and ordinances, and the City's Development Code.

Whenever an uncertainty exists regarding the location of boundaries of any land use category, circulation alignment or other symbol or line found on the official maps of the General Plan, the following procedures will be used to resolve the uncertainty. Boundaries shown on any map in the General Plan which approximately follow the corporate boundaries of the City shall be construed as following these boundaries. Boundaries shown as approximately following section lines, half or quarter section line shall be construed as following such lines. Boundaries shown as approximately following the centerline of a stream, creek or other continuously or intermittently flowing water course shall be construed as following the centerline taken at mean low water, and in the event of natural change in the location of such streams or other water course, the boundary is to be construed as moving with the channel centerline. Boundary lines shown as approximately following street alignments shall be construed as being located at the street centerline. Where a land use designation applied to a parcel is not mapped to include an adjacent street or alley, the category shall be considered to extend to the centerline of the right of way. Boundaries shown as separated from, parallel, or approximately parallel to any of the features listed above shall be construed to be parallel to such features and at such distances therefrom as are shown on the map.

IMPLEMENTING THE GENERAL PLAN

California Government Code Section 65103(c) requires that local jurisdictions implement their General Plan once it has been adopted. The City's General Plan relies on element programs and implementation strategies, as well as the related mitigation measures and programs set forth in the General Plan Program EIR, to serve as implementation measures. The City Development Code also plays a critical role in implementing the goals and policies of the Plan, and specific plans may provide detailed implementation programs for portions of the planning area.

The Development Code is the primary tool for implementing the General Plan. It regulates development through the creation of zone districts shown on the Zoning Map, with accompanying text which outlines the permitted uses allowed and development standards required within each zone. State law mandates that the City's Development Code be consistent with the General Plan. Should the Development Code become inconsistent with the General Plan, the Development Code must be amended within a reasonable period of time, and made consistent with the General Plan. The Development Code cannot be amended if it creates an inconsistency with the General Plan. It is the City's intent to amend the Development Code immediately following General Plan adoption to ensure consistency between development regulations and land use policies.

The California Environmental Quality Act (CEQA) requires that an initial environmental study be prepared for new development projects, to include "an examination of whether the project is compatible with existing zoning and plan." The CEQA Guidelines further state that a "project will normally have a significant effect on the environment if it will conflict with adopted environmental plans and goals of the community where it is located." If the Planning Commission or the City Council determine that an action is inconsistent with the General Plan, no further action can be taken without the completion and processing of an Environmental Impact Report (EIR) or other detailed analysis which would support the finding of overriding consideration. Through the CEQA process, the City will ensure conformity between development approvals and the General Plan.

Subdivision regulation is another instrument for implementing the General Plan. Establishing state-wide uniformity in local subdivision procedures, the State Subdivision Map Act (Government Code Sections 66410 et seq.) delegates the authority to regulate some aspects of the design and improvement of subdivisions to local government. State law also requires that a subdivision cannot be approved unless a finding is made that the project is consistent with the City General Plan and any applicable specific plan. The City will update its subdivision regulations to conform to the General Plan, and will require that each subdivision approved in the City conform to the General Plan.

One of the statutory responsibilities of incorporated cities and counties is to "annually review the capital improvement program of the city or county and the local public works projects of other local agencies for their consistency with the General Plan." The City will submit its Capital Improvement Program to the Planning Commission annually to ensure that a finding of conformity with the General Plan is made, prior to its adoption.

The General Plan is a dynamic and multi-faceted document, which defines and addresses the changing needs of the community. To assure that the General Plan is kept current, programs and policies should be reviewed annually to reflect compatibility with budgetary priorities and related program status. Long-term programs and implementation measures should be given consideration in budgeting to assure timely funding and development of infrastructure, public services and facilities. California Government Code Section 65400(b) requires that the planning agency "render an annual report to the legislative body (City Council) on the status of the General Plan and the

progress in its implementation." State law further requires that the Housing Element be reviewed and updated at least once every five years.

Through these measures, as well as through adherence to the maps, goals, policies and programs contained in this document, the City will assure ongoing implementation of the General Plan.

AMENDING THE GENERAL PLAN

Pursuant to State law, each element of the General Plan may be amended up to four times in each calendar year. The City Council may initiate a General Plan Amendment, or an applicant may file for an amendment by submitting an application with the City Planning Division. An amendment to the General Plan constitutes a project under CEQA, and therefore is evaluated for its environmental effects and consistency with other elements of the General Plan. General Plan Amendments are legislative acts which must be reviewed by the Planning Commission with final approval by the City Council.

The State Legislature has recognized that occasions arise which require the local jurisdiction to have some flexibility in the time periods established for amending the General Plan. As set forth in the California Government Code, the following are exempt from the General Plan amendment schedule.

(1) Amendments requested and determined necessary for the development of a residential project, of which at least twenty-five percent (25%) of its units will be available to persons of low or moderate income (Sections 65361(b) and 65358(d)); and

(2) Any amendment necessary to comply with a court decision in a case involving the legal adequacy of the General Plan (Sections 65361 and 65358 (d) (1)).

It is the intent of this General Plan to provide a flexible planning tool for the community to utilize in achieving its long-term goals. The General Plan must respond to changing community needs, values and environmental conditions to ensure continued effectiveness of the document. Monitoring of the General Plan will be accomplished through annual reviews that will help in determining when revisions are necessary. Major updates to the plan, or portions thereof, will be undertaken every five to seven years to reflect new conditions, local attitudes and policy changes as needed.

DEVELOPMENT OF THE GENERAL PLAN

California Government Code Section 65351 states that during preparation of the General Plan "...opportunities for the involvement of citizens...and other community groups" must be provided "through public hearings and any other means the city...deems appropriate." In accordance with State law and in recognition of the importance and value of citizen involvement, the City has created numerous opportunities for citizen participation throughout the General Plan development process. In June, 1996, the city conducted a number of visioning sessions with the help of a consultant. Sessions were held at City Hall, tours were conducted throughout the city, a Saturday luncheon was

held, and an idea board was installed at City Hall for a month. Community vision sessions were then conducted in living rooms and other sites around the City. Participants were invited to take part in visioning exercises, and a recorder took written notes at each session. Visioning exercises were also held with various community groups such as the Chamber of Commerce and service organizations. Workbooks and questionnaires were made available to the public at several locations. The results of this effort were published in a report entitled *Community Vision – Big Bear 2020*, dated October 4, 1996.

Following this public visioning process a planning consultant was retained by the City in October, 1996 by the City to assist in preparing a new General Plan. In 1997 a community advisory group was formed to provide input in the General Plan process. Called Team 2020, this group included representatives from various service entities such as the school district and Municipal Water District, the ski resorts and local businesses as well as interested residents. Team 2020 met with planning staff and the consultant at a series of meetings in 1997 and early1998 to formulate a draft General Plan. This draft document, including text and maps, was presented to the Planning Commission in June, 1998 and to the City Council in July, 1998. Based on concerns expressed by the City Council, it was determined that additional revisions would be needed to complete the General Plan. Beginning in August, 1998 the City Council, along with two representatives of the Planning Commission and various members of Team 2020, began a comprehensive review of each element of the draft General Plan at a series of 17 publicly advertised workshops, completing these public workshops in March, 1998. Based on the revisions made, staff updated the text and maps of the draft General Plan and retained consultants to modify the traffic model, biological resource maps and final Environmental Impact Report. This work was completed in July, 1999, and the General Plan was scheduled for additional public hearings by the Planning Commission and City Council in August, 1999. Two public hearings were held, and the Environmental Impact Report was certified and the General Plan was adopted on August 23, 1999 by adoption of City Council Resolution No. 99-36.

GUIDING PRINCIPLES OF THE GENERAL PLAN

As adopted, the General Plan represents a consensus of the City of Big Bear Lake's vision for the future, based on input from Team 2020 and the community; this vision can be summarized in the following Guiding Principles:

- Providing and encouraging proper stewardship for the lake, forest, natural environment, our heritage and recreational resources;

- Maintaining a sense of public safety in the community;

- Encouraging a year-round, well-balanced economic base while recognizing the importance of tourism in the local economy;

- Encouraging everyone within the community, including the many governmental agencies and special districts which serve the area, to work towards common goals while protecting the rights of the individual;
- Constructively addressing the impacts, opportunities and constraints of tourism;
- Addressing the feasibility and impact on the City of Valley-wide unification;
- Improving the architectural and visual quality of the built environment and man-made resources;
- Constructively addressing the transportation and circulation needs of our Valley;
- Providing sufficient infrastructure to meet the long term needs of the community; and
- Providing and encouraging improvements to the quality of the experience of our visitors.

VISION FOR THE CITY OF BIG BEAR LAKE

Based on the guiding principles, community input, and input from the Planning Commission and City Council, the following vision has been developed for the City of Big Bear Lake. It is intended that the General Plan will assist the City in achieving this vision.

Located at the edge of the greater Los Angeles metropolitan planning region in an area known as the Inland Empire, the City of Big Bear Lake occupies a unique niche as a mountain retreat, a recreational and vacation destination, a biologically diverse ecosystem, a home to approximately 6000 permanent residents and 12,000 part-time residents and the only incorporated city in the mountain region of San Bernardino County. Because of its diverse environmental setting, outstanding scenic beauty and recreational opportunities ranging from snow sports to water sports and from cultural events to camping, Big Bear Lake has the opportunity to maintain and enhance its role as a regionally significant destination point while sustaining the local community with a high quality of life. Within the planning period envisioned by this General Plan (2020), the City will combine its resources and efforts with other community-based organizations and agencies to achieve the following vision.

Under the Land Use Element the City will accommodate construction of approximately 2275 more dwelling units for a total of 11,096 dwelling units at build-out, of which approximately 50 percent are anticipated to be occupied by permanent residents. Although build-out may not occur by 2020, it is estimated that when all vacant land within the community has been developed according to the Land Use Plan, approximately 13,000 people will reside permanently within the City limits. To support this growth, the City will expand its infrastructure and work with other

service providers to enhance community services. The road network will be improved through resurfacing and widening where needed, and the City will coordinate with Caltrans to improve access to the community from State highways. The drainage system will be improved to provide local flood control while preserving natural drainage courses as open space with trails or habitat preservation where feasible, and to minimize siltation of streams and the lake. The problems of infiltration and inflow currently impacting the sewer system will be addressed through upgrades to the system. Plans for water reclamation and storage will be developed and implemented to assure adequate water supplies for domestic use, fire flow and habitat preservation.

The continued public health and safety of residents and visitors will be assured through expansion of fire facilities and incremental staffing increases of fire and law enforcement personnel. The City will formulate and implement an Emergency Response Plan addressing a variety of natural and man-made hazards, and will work with appropriate agencies to ensure that adequate schools, medical facilities, social services, legal services and library services are provided to meet the needs of the community. In particular, the City will seek opportunities for encouraging provision of post-secondary education, and upgrades to communications systems to facilitate distance learning for residents. Additionally the City will assist in development of affordable housing opportunities for seniors and others with special needs.

The citizens of Big Bear Lake value its natural environment and will preserve areas of special ecological sensitivity, scenic beauty, recreational value and cultural and historical significance. The City will partner with public and non-profit agencies to conserve mountain meadowland, endangered species, pebble plains, the lakefront, eagle perch trees and other critical habitats. Through development regulation combined with creative funding sources, the City will seek preservation of existing trees and ensure planting of new trees, including deciduous trees as well as native conifers. Lakefront access points, including Boulder Bay, will be improved and preserved for use by the public. Significant historic sites and structures will be identified and memorialized for future residents before they are lost. The Valley's rich history and Western heritage will be recognized and encouraged in the community's design.

In order to maintain the quality of life, it is essential that the basic elements of the Big Bear Lake lifestyle be retained: clean air, blue skies, trees, the presence of diverse wildlife, good stewardship of the Lake, a friendly small-town atmosphere and good mountain design. The City will coordinate the critical issues of environmental resource preservation and public services with economic vitality in the community, while preserving the quality of life that residents came here to enjoy. The key to balancing these competing needs will be careful planning, coordinated

with appropriate economic development initiatives. The City will seek to remain a vacation destination point by providing high quality lodging, dining and recreational facilities, and by diversifying the types of cultural and entertainment activities available. A variety of activities will be provided, which may include musical and theater productions, an annual film festival, car show, Oktoberfest, jazz festival, holiday festivities and Old Miners Days. To support these and similar events, the City will investigate options for development of new entertainment venues, including a Village Green and an amphitheater. Traffic control during special events will be addressed through provision of convenient parking lots for visitors and trolleys or shuttle buses to various event locations. In addition, the City will expand the activities of its film office to increase the number of filming days in the Valley, already a major contributor to the local economy.

Sports and recreation will continue to be major draws to the area, and the City will encourage development of high-altitude athletic training facilities, especially in conjunction with additional recreational facilities for Valley residents, including an indoor Olympic-sized swimming pool. Through joint funding efforts with other agencies, the City will adopt and implement a master plan for trails providing bicycle and multi-purpose trails throughout the community. The City will work with private recreational entities, including the lake marinas and ski resorts, to meet their needs for expansion and upgrades while protecting adjacent uses, and will encourage development of an 18-hole golf course. The City will work with other public agencies to plan and seek funding for additional recreational facilities, including a sports complex accommodating play fields for various team sports, an indoor swimming pool and a recreation center with basketball facilities.

The key to achieving this vision is a commitment to partnerships between the City and its residents; the City and the business community; the City and the service providers; the City and non-profit organizations; and the City and those County, State and Federal agencies with which it interacts. These partnerships will include efforts at simplifying the jurisdictional complexity of agency boundaries within the City and the Valley, and more effective coordination between agencies. By working together, we believe this vision can be realized.

LAND USE ELEMENT

LAND USE ELEMENT

PURPOSE

The Land Use Element of the General Plan contains the City's blueprint for long-range growth and development. The goals, policies and programs contained within this element address the significant issues facing the community through a variety of land use planning strategies. The quality, quantity and location of future residential, commercial, industrial development and public facilities are addressed, along with economic development and open space issues. Issues identified within each of the other General Plan elements have also been integrated with this element, to the extent that they affect land use. The element also serves as a statement of the standards and targets for residential population density and building intensity. The Land Use Element is the broadest of the elements and is the basis for coherent land use policy development.

The Land Use Element addresses existing development patterns which have occurred in the City of Big Bear Lake and establishes a framework for focusing future growth in a logical and orderly manner. All of the principles of community and land use planning are applied to the drafting and adoption of a comprehensive, long-term General Plan of land use for the physical development of the City. The process of developing the land use plan involves the analysis of existing land use patterns, current and future available public services and facilities, and consideration of the physical environmental constraints and opportunities on development. The element identifies existing and potential development opportunities and constraints, and sets forth the distribution of land uses by type and intensity. In particular, the element addresses Big Bear Lake's role as a major recreational destination point, the importance of tourism in the local economy, and the resulting land use issues. Equally important in the Land Use Element is the City's role as a home town and the need to preserve it as a livable community for both permanent and part-time residents.

Specifically, the Land Use Element serves the following purposes:

1. The Land Use Element informs the public of the City's land use goals, objectives, and policies for long term development. It serves as a foundation for private as well as public decision making.

2. The Element serves as a guide for the day-to-day operational decisions of City Staff with respect to development matters. It sets forth policies for handling land use issues and responding to opportunities for growth and development.

3. The Element establishes land use classifications for land within the planning area and the standards of density and intensity for each classification, as well as projections of future population growth and its spatial distribution. It also outlines policies and programs that implement the stated goals.

4. The Element addresses economic development issues and relates those issues to long-range land use plans.

5. As a State-mandated element, it fulfills one of the requirements of California Government Code Section 65000 et seq.

BACKGROUND

Relationship of the Land Use Element to the General Plan

Government Code Section 65300 requires every city and county to prepare and adopt "a comprehensive, long-term general plan for the physical development" of the community. The General Plan is further required to provide a land use element that designates lands for housing, business, industry, open space, as well as other uses deemed appropriate by the city (Government Code Sections 65302(a) and 65303). Although all the General Plan elements are important, the Land Use Element is generally considered to be the most representative of and essential to the General Plan. In practice, the Land Use Element is of the broadest scope and the most widely used in the General Plan, with goals, policies and programs set forth to guide and direct the physical development of the community.

According to the State's General Plan Guidelines, "knowing the past, current and projected state of the local economy is fundamental to preparing a realistic general plan." The guidelines further state that "land use decisions have not only immediate and future physical environmental impacts, but have social and economic impacts as well...since a general plan represents the most comprehensive local expression of the general welfare as it relates to land use regulation, recognizing social and economic concerns in the general plan is not only appropriate, but necessary." In response to these guidelines and in order to integrate economic development objectives into the planning process, the Land Use Element also contains background information, goals and policies on economic issues.

One of the elements most closely related to the Land Use Element is the Circulation Element, which is directly affected by and has a constraining effect upon the viability of the land use plan. The General Plan Guidelines and case law require a close and logical correspondence between these two elements. Other elements with strong dependence upon the Land Use Element include Housing, Community Design and Public Services and Facilities, as well as those addressing environmental hazards and resources within the community. Policies and programs associated with each of the major land use categories are set forth in the Land Use Element and reflect the goal of the community to facilitate compatible and orderly development.

The Planning Area

Big Bear Lake and the communities that surround it were historically natural resource areas for the populations in the valleys below, having experienced mining, cattle ranching and forestry "booms" at one time or another. In recent times, the Big Bear Valley has been a weekend and second-home

retreat for residents of the San Bernardino, Riverside, and Los Angeles metropolitan areas. The communities surrounding the lake have traditionally been small and rural and, until recently, did not experience the challenges of urbanization faced by other cities in the Inland Empire.

In recent years, as tourism increased, the impacts of these visitors began to be felt by permanent residents. The increased size of the community, and a strong wish to have local control of the future, led to incorporation of the City in 1980. The residents of the City expressed a strong desire at that time to balance the benefits of growth with the preservation of the natural environment.

There are currently a total of 4,466 acres in the planning area (nearly seven square miles), designated for a broad range of land uses, including residential, commercial, and industrial designations. In 1982, the Local Agency Formation Commission (LAFCO) adopted the City's sphere of influence, referring to that land adjacent to the City limits which may feasiblely be annexed in the future and for which the City has the responsibility to plan. At that time LAFCO considered several alternatives which would have expanded the City's sphere of influence to the north and east of its current location. However, due to public protest by residents of the Fawnskin and Big Bear City areas, LAFCO determined that the City's sphere of influence should extend no further east than Division Drive, and no further north than the contour line 100 yards north of the high water mark of the lake. The southern boundary of the sphere of influence generally follows the Forest Service boundary. The City has taken no action to expand these sphere of influence boundaries, and has no plans to do so in the future. The land use map addresses land within the existing City boundaries as well as within the adopted sphere of influence. The incorporated area of the City along with the adopted sphere of influence constitute the "planning area," as that term is used in this document.

The City's location adjacent to large areas of public lands, which are under the control of the United States Department of Agriculture's Forest Service, poses both challenges and opportunities for the City. Federal lands are being preserved as public open space with only limited development. These open space lands provide the City with many of its spectacular vistas, environmental resources and hazards.

Land Use Map Designations

The Land Use Element and accompanying land use map describe and designate the distribution of land uses by type, location, intensity and extent of use. Land use designations include residential, commercial, industrial, open space, public facilities, and other categories of public and private land uses. Prior to the adoption of this General Plan a comprehensive assessment of existing land uses and their distribution was conducted using field surveys, aerial photo analysis, a comprehensive computer-based geographic information system (GIS), and extensive public participation through workshops and hearings. Based upon this analysis, a land use map was developed. The descriptions of each land use category, along with policies to guide development within each district, are contained in the section of this element outlining goals, policies and programs.

DEMOGRAPHIC INFORMATION

Population and Housing

The City's permanent population has grown from 4,923 at the time of incorporation in 1980 to 6049 in 1998, which represents an increase of 22 percent over the last 18 years. In the year 2000, the Southern California Association of Governments (SCAG) estimates the City's permanent population will be 6,967, an increase of 14.7 percent from 1990's population. Furthermore, SCAG predicts a population of 9,189 for the year 2010, and 11,629 for the year 2020.

Table LU-1 shows population and housing growth within the City from the year after its incorporation in 1981 through 1998. According to a recent report by economist John Husing, Big Bear Lake is one of the slowest-growing cities in San Bernardino and Riverside Counties.[1] The City grew by only 698 residents from 1990 to 1998, for an average annual growth rate of only 0.8 percent during this period. In terms of its ranking for population growth in the two-county area, Big Bear Lake ranked 46th out of the 48 cities in the Inland Empire, with only Needles and Indian Wells showing slower rates of growth.

During this same period of time, however, the City showed a steady rate of building activity, especially in the category of new single family homes. As shown in Table LU-2, building permits were issued for 601 single family residential units and 88 multiple family residential units from 1990-1998. That the increase in housing stock did not result in a commensurate rise in population is due to the fact that most of the new homes were built as second or vacation homes, rather than permanent, primary residences. (It should also be noted that the large increase in the number of permits issued for repair and reconstruction of structures in 1992 was due to earthquake damage sustained in the Big Bear Earthquake of that year.)

According to the California Department of Finance, there were 9019 dwelling units in Big Bear Lake as of January 1, 1998, of which 7488 (83 percent) were detached single family units and 1171 (13 percent) were attached or multi-family units. Approximately 4 percent, or 360 units, were mobile homes. Of the total number of dwelling units, only 2381 (26 percent) were permanently occupied, and the remaining 74 percent were not permanently occupied; some of these units were used as second homes or vacation rentals. These statistics indicate a residential development pattern that is unique to resort communities, in which a large number of dwelling units are not occupied year-round and many neighborhoods are subject to a predominantly transient residency. Strategies for dealing with this situation are contained in the residential goals and policies of this element.

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[1]Husing, John E., "Inland Empire City Profile 1998," *Inland Empire Quarterly Economic Report,* Vol. 10, No. 3, July 1998.

Table LU-1
City of Big Bear Lake Population and Housing, 1981-1998

	Population		Housing							
Year	Total	Households	Total	Single-family	2 to 4	5 or more	Mobile-homes	Occupied	% vacant	Population per household
1981	4974	4974	6933	5893	284	474	282	1962	71.70	2.535
1982	5099	5099	7244	6072	291	565	316	2022	72.09	2.522
1983	5275	5275	7290	6171	291	565	263	2074	71.55	2.543
1984	5860	5860	7445	6286	293	565	301	2301	69.09	2.547
1985	5620	5620	7614	6425	295	565	329	2208	71.00	2.545
1986	5766	5766	7713	6516	295	565	337	2257	70.74	2.555
1987	5836	5836	7837	6632	299	565	341	2308	70.55	2.529
1988	5950	5950	8062	6746	349	626	341	2370	70.60	2.511
1989	6368	6368	8388	6763	396	761	468	2589	69.13	2.460
1990	5351	5351	8564	7050	720	431	363	2262	73.59	2.362
1991	5412	5412	8597	7083	720	431	363	2287	73.40	2.363
1992	5594	5594	8694	7176	724	431	363	2338	73.11	2.389
1993	5637	5637	8769	7243	732	431	363	2339	73.33	2.407
1994	5811	5811	8821	7289	738	431	363	2374	73.09	2.444
1995	6075	6075	8857	7325	738	431	363	2452	72.32	2.474
1996	5957	5957	8911	7379	738	431	363	2353	73.59	2.528
1997	6001	6001	8950	7526	738	431	355	2363	73.6	2.536
1998	6049	6049	9019	7488	740	431	360	2381	73.60	2.537

Source: California Department of Finance

Table LU-2
Summary of Building Permit Activity in City of Big Bear Lake, 1990-1998

Type of permit issued	1990	1991	1992	1993	1994	1995	1996	1997	1998
Single family residential	69	99	66	62	63	52	47	72	71
Multi-family residential	4	42	5	0	0	0	0	13	24
Res.additions/ alterations	271	328	137	146	178	114	139	117	137
Commercial/ Industrial	69	86	43	28	9 new 60 add/ alter.	1 new 41 add/ alts.	4 new 53 add./ alts.	18 new 51add/ alts	8 new 55 add/ alts.
Repair/Reconstruction	141	124	1040	610	113	139	120	116	153

Source: City of Big Bear Lake Division of Building and Safety

The ratio of permanent to transient occupancy is also important in projecting population growth within the planning period. Although traditionally the permanent occupancy level within the City has been around 30 percent, for purposes of this General Plan it is assumed that maximum permanent residency will not exceed 50 percent within the 20 year planning period. Therefore, permanent population projections derived from the land use plan were based upon this assumption.

Although transient population does not impact the schools, the large number of seasonal residents in the City and Valley places an added burden on local infrastructure and resources. As many as 50,000 or more people are estimated to visit the City on a peak holiday weekend, and according to the Forest Service, approximately 5 million people visit the Big Bear Valley and vicinity each year. For purposes of planning and designing the capacities of streets, parks, parking facilities, sewer and water facilities, utilities and municipal services, the seasonal population must also be considered.

Table LU-2 indicates that most of the building activity over the last 8 years has occurred as construction of new single-family homes. As with most other southern California markets, the City experienced recessionary conditions in the first half of this decade. This, coupled with the earthquake of 1992, caused a decrease in new home construction in 1992 and 1993, although the number of permits issued for reconstruction increased after the earthquake.

DEVELOPMENT PATTERNS

The City of Big Bear Lake has developed along the south side of the lake in a generally linear pattern extending for almost seven miles, with urban development constrained by the U. S. Forest Service boundary to the south and west and by the lakeshore to the north. To a large extent, the existing distribution of land uses within the City has followed the General Plan adopted in 1984, with the predominant land use category being single family residential uses. Table LU-3 shows the amount of land allocated to each type of land use under the former General Plan as well as the present plan. It can be seen from this table that the prior plan's emphasis on single family residential development has been borne out in the resulting distribution of dwelling units described above. The updated General Plan continues to emphasize single family residential dwellings and expands the area devoted to commercial, open space and public uses. The amount of land devoted to multi-family dwellings and industrial land uses is not significantly different between the two plans.

Table LU-3
Distribution of Land Use Designations in City of Big Bear Lake General Plans

Land Use Type	1984 General Plan		1999 General Plan	
	Acres	% of Total	Acres	% of Total
Single family residential 0-4 du/ac	3150	73	2328*	59.3
Multiple family residential 5-12 du/ac	400	9	337**	8.6
Commercial, including retail, services, lodging, camps and recreation	510	12	729**	18.5
Industrial and business park	20	0.5	12.1	0.3
Public uses	80	2	152**	3.9
Open space	150	3.5	369	9.4
Totals	4280	100	3927***	100.0

* Excludes camp overlay areas, which are included in Commercial category for purposes of this comparison
** Includes acreage from the Village Specific Plan.
*** Excludes 518 acres of roads in planning area (city and sphere).

LAND USE ISSUES AND MAP DESIGNATIONS

Residential Uses

Based upon the proposed land use map, a total of 2411.9 acres of land have been designated for residential uses of various densities ranging from rural residential uses at one unit per 2 ½ acres to multiple family uses at 12 units per acre. An additional 84.2 acres are designated for residential uses with a Camp Overlay, meaning that existing camps are planned for until such time as the camp use is discontinued, when the land may be converted to the underlying residential density designation. The distribution of residential land use categories on the land use map is shown below, along with the resulting projections for dwelling units and population at maximum build out and assuming that up to one half of the units will be permanently occupied.

Table LU-4
Distribution of Residential Land Uses in General Plan

Land Use Designation	Maximum Permitted Density	No. of Acres Designated	% of Residential Land	Max. No. of Units	Total permanent residents*
Rural Residential (RR)	1 unit/2 ½ acres	360 (includes 71.9 ac. camp overlay)	13	144	180
Equestrian Estates (EE)	1 unit/acre	89.8	3	179	223
Single Family Residential–3 (SFR-3)	3 units/acre	262.8 (includes 12.3 ac. Camp overlay)	10	788	985
Single Family Residential–4 (SFR-4)	4 units/acre	1,699.3	62	6,797	8496
Multiple Family Residential	12 units/acre	331.9	12	3,982	4977
Total	N/A	2743.8	100	11,890	14,861

Source: AIS and Big Bear Lake Planning Division
*Based on 2.5 persons per dwelling unit at 50 percent maximum permanent occupancy.

The current land use plan continues a trend of the 1984 General Plan by creating a residential land use pattern of predominantly single family homes. However, the plan also contains adequate areas for a variety of housing types and lifestyles throughout the community by allowing rural residential uses, equestrian lots, single family homes at varying lot sizes, and sufficient land designated for multiple family uses to accommodate the City's housing needs. In particular, it can be seen that adequate land has been designated to accommodate the construction of 3,982 multiple family

dwelling units, if in the future the planning area is built out at maximum density. Since only 1171 attached and multi-family dwellings currently exist within the community, sufficient sites for affordable rental housing units have been included within the land use plan. A few areas have been established to accommodate keeping of horses on residential lots of one half acre or larger; these include equestrian lots along Switzerland Drive and Bow Canyon Road, as well as the rural residential designation south of the Civic Center. Within other residential areas which are not identified as equestrian, owners of residential lots who are legally keeping horses at the time of General Plan adoption will have that use grandfathered as a legal non-conforming use. With respect to other animal uses in the City, the General Plan contains policies to restrict the keeping of farm animals within residential neighborhoods, although domesticated household pets will be allowed in all residential designations. Provisions for amortization of animal uses which become non-conforming will be established in the Development Code.

Residential densities in the single family residential designations are specified on the land use map with a numeral following the SFR designation, which allow a maximum of 2, 3 or 4 dwelling units per acre. At present, no areas have been designated for 2 units per acre, which would yield lot sizes of about 18,000 square feet; however, this designation may be appropriate for future development, and is available for use if needed. SFR-3 has been designated in areas which contain lots generally ranging in size from 10,000 to 18,000, and SFR-4 areas generally include lots of 7,200 square feet, as well as existing substandard lots. Approximately 25 percent of the gross area contained within the residential designations is assumed to be devoted to public rights of way, utility easements, flood control easements and other public infrastructure uses.

Most of the land within the City designated for single family residential use has been previously subdivided into buildable lots, so that new housing construction primarily occurs in the form of custom home development on existing lots. One of the issues of concern with respect to residential development in the City is the existence of three areas which were subdivided into substandard lots early in this century. Within these three areas of the City residential lots were subdivided as small as 2500 square feet (25 feet wide by 100 feet deep). Two of these areas are in the Moonridge district, and one area known as "Skunk Hollow" is located northwest of Red Ant Hill. The small lots were originally created as tent or camping lots in the 1920's. Because they were legally created, it has been determined that the owners of these lots should not be deprived of the right to use them for permitted uses, or forced to purchase additional adjacent parcels to merge the smaller lots into a conforming lot of 7200 square feet. On many of the substandard lots narrow houses have been built with setbacks of only 3 feet from adjacent side yard property lines. Although construction of new homes on substandard lots is not generally desirable, a development pattern has been established in these areas and a limited number of these lots remain undeveloped in the City. Therefore, after reviewing alternatives, it was determined that these three areas should continue to be designated for single family residential uses and that development standards should be adopted by ordinance which would ensure adequate setbacks and address lot coverage and parking issues for future development of substandard lots.

According to the State Department of Finance, 74 percent of the dwelling units within the City are classified as vacant, with the majority of these units assumed to be used as vacation homes and/or second homes. This condition has raised another issue of concern within the City, because many of the vacation homes are being rented out occasionally for transient occupancy by visitors to the area. In 1990 the City adopted Ordinance No. 90-187 which permitted the rental of privately-owned homes for vacation rentals, provided that certain requirements are met. These requirements included obtaining a business license, posting of an identification sign, provision of adequate off-street parking and interior fire alarms, trash removal, code compliance and payment of transient occupancy tax. Concern over vacation home rentals has been addressed to the City Council with respect to two major issues: first, that some property owners do not adhere to City requirements, and that unmaintained or overcrowded units cause detrimental impacts to surrounding properties; and second, that allowing single family homes to be operated as visitor lodging in competition with commercial lodging facilities, without requiring adherence to the same code requirements applied to commercial lodging facilities, creates an uneven playing field and unfair competition within the commercial lodging business.

This issue has been discussed at length and will continue to be reviewed by the City in order to resolve community concerns. However, with respect to the land use designations in the General Plan, the decision was made to continue allowing transient rental of homes within all residential designations, provided that such uses meet City requirements. These requirements may be amended in the future to enhance compatibility with neighborhoods and provide additional methods of enforcing compliance with standards.

Related to the issue of transient occupancy within residential designations is the issue of bed and breakfast uses and other forms of commercial lodging within these areas. Bed and breakfast establishments have been permitted in residential zones since 1986, pursuant to and as regulated by Ordinance No. 86-132. It is the intent of this General Plan to allow bed and breakfast uses with five or fewer guest rooms within single family residential designations, including the Equestrian Estates and Rural Residential designations, provided that they meet applicable code requirements. Bed and breakfast uses will be permitted in the Multiple Family Residential designation provided that the number of units does not exceed 12 dwelling units per acre. Other forms of commercial lodging, including hotels, motels, inns, time-share units, lodges and similar establishments, will also be allowed in the Multiple Family Residential designation with a density restriction of 12 units per acre. It was determined that in order to protect the character of residential neighborhoods, the density restriction of 12 units per acre was appropriate for both permanent as well as transient unit types in the MFR designation. When commercial lodging is placed within commercially-designated districts, the density of units will be based upon the site's capacity to accommodate the proposed intensity of use.

In terms of other types of commercial uses mixing with residential uses, the General Plan will continue to allow home occupations within residential areas, provided that required approvals are obtained. Under the land use policies and descriptions, residential uses will not be a principally

permitted use within commercially-designated areas, and commercial uses will not be allowed as principally permitted uses within residentially-designated areas, although some accessory uses in both designations may be allowed. This division of uses has been established to preserve residential neighborhoods from encroachment by more intensive uses which generate additional traffic, noise, light and glare, and which bring large numbers of people from outside the area into established residential neighborhoods. In addition, commercial districts will be protected from encroachment by incompatible residential uses to avoid complaints from neighbors or restrictions on the use of commercially-zoned property due to neighborhood conflicts. Policies to establish adequate transition areas between commercial and residential uses have been included in the Land Use Element.

Public, Open Space and Camp Uses

Property which is owned by public agencies and which is or will be used for various public facilities has been designated as Public (P) on the Land Use Map. These facilities include City buildings and property, fire stations, sewer and water facilities, schools and school administration facilities, flood control property and channels, County facilities, hospital facilities and property, and similar uses. For properties which may be owned by a public agency but which are used for commercial or other non-public purposes, the P designation has not been used.

The Open Space (OS) designation was applied to land which has been set aside for open space and conservation purposes, either as active or passive open space. These areas include parks owned by the City and the Big Bear Valley Recreation and Park District; lettered lots in recorded subdivisions which were set aside for wildlife mitigation or conservation purposes; and land owned by public and non-profit agencies which has been set aside for resource conservation and/or wetland and wildlife mitigation.

The Camp Overlay designation (CAMP) is shown on five existing camps within the City of Big Bear Lake, and is intended to allow preservation and enhancement of these areas for camp purposes throughout the period of time in which each of the camps is in existence. The underlying designation on the land use map for each camp will become effective if and when the camp use is discontinued, without the need for a subsequent general plan amendment.

Commercial and Industrial Designations

The General Plan land use map shows four different designations for commercial uses. Commercial–General (CG) was applied to areas which are or will be developed with a wide variety of retail and service uses serving the community, the valley and the traveling public, and is generally located adjacent to Big Bear Boulevard. This designation contains the major shopping centers in the City. Commercial–Visitor (CV) is oriented towards services to the traveling and visiting public, especially commercial lodging, specialty shopping and eating establishments. This designation is located either adjacent to the State highway or adjacent to destination points such as the lake, golf

course and ski resorts. It is the intent of the CV designation to create, enhance and preserve an environment which visitors will find appealing and enjoyable, and to which they will want to return. Commercial–Recreation (CR) is the designation used for major attractions, recreational facilities and destinations which attract large amounts of traffic and which may involve light, noise or other impacts which would not be appropriate in less intensive districts. Marinas, winter resorts and recreational vehicle parks would be typical uses in this designation. Finally, a Commercial–Services (CS) designation is placed on areas which contain or will be used primarily for office and institutional uses. The CS designation may be used as a buffer zone or transitional area between more intensive uses and residential uses.

A limited number of residential units may be allowed in commercial designations, but only as an accessory use to the primary commercial; construction of new residential units as a primary use in commercial designations would not be allowed. This provision would allow no more than three residential units on a parcel containing retail or office uses, except that the residential density on any parcel may not exceed 12 dwelling units per acre. For example, a 7500 square foot commercial parcel could accommodate no more than 2 accessory dwelling units based on the density limit, and may accommodate less based on meeting parking, open space and landscaping requirements. The intent is to allow for caretakers, business owners and shop-keepers to live above or near their places of business, or allow for a limited number of rental units in commercial areas to accommodate employees or others who wish to reside near businesses. Although this type of development has been allowed in the City's Development Code for many years, there has not been a significant number of residential units constructed over or behind storefronts; therefore, this provision is not expected to add a substantial number of dwelling units to the City's residential mix. Any such units must be provided with adequate parking and amenities onsite.

The land use map indicates one designation for industrial uses within the City. The Industrial (IND) designation was applied to parcels of land which are or may be used for manufacturing, processing, construction, storage, fabrication, repair, rental and other activities serving primarily the local Valley area.

According to a 1993 report by the City's economic consultant, Alfred Gobar Associates, the Big Bear Valley's location is not suitable for distribution activities. "Industrial development and hence industrial employment are relatively smaller-than-average elements of the economy in Big Bear Valley...Over half the industrial space surveyed is located outside the City Limits of the City of Big Bear Lake."[2] Gobar concludes that although there is an apparent need for some additional speculative industrial space in the Valley, the scale of the market is modest with absorption estimated at only about one-third of an acre per year.

Because the need for vacant industrially-designated land is low within the City, the General Plan land use map does not show a large amount of land with this designation. Existing industrial uses

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[2]Alfred Gobar Associates, *City of Big Bear Lake Economic Base Study,* July, 1993, p. 153.

are recognized with the IND designation, but additional land for industrial growth has not been projected to be needed within the City limits. Since a large amount of industrially-designated land exists in an unincorporated area of San Bernardino County in the Big Bear City area, adjacent to Big Bear Airport, it was determined that sufficient land exists elsewhere to serve the minimal anticipated need within the Valley. This course of action is in keeping with Gobar's recommendation that "future industrial development should focus on areas providing relatively large flat parcels of land, removed from view corridors and with limited retail development opportunity. Acreage surrounding the Airport to the north, south and west is well-suited for master-planned industrial development...Big Bear Lake should investigate possible participation with San Bernardino County to provide assistance for development of an industrial or business park ."[3] This recommendation has been incorporated into the policies of the Land Use Element.

Specific Plans

Public Resources Code Section 65450 allows the preparation of specific plans for "the systematic implementation of the general plan..." Specific plans are an effective way to plan and encourage growth and development in areas with unique situations, in cases where the General Plan does not contain sufficient detail to guide development, or if the citywide zoning ordinance contains some inappropriate or inapplicable regulations given the unique characteristics of an area. There have been two such specific plans prepared in Big Bear Lake: the Village Specific Plan and the Moonridge Specific Plan. Each specific plan is described below, along with the recommendations for its treatment in the General Plan.

Village Specific Plan: The Village Specific Plan was adopted in 1987 to enhance and support the traditional business core of the community and protect its character. The specific plan area is generally bounded by Big Bear Lake on the north, Lakeview Drive on the west, Cameron Road on the south and Knickerbocker Road on the east.

The stated intent of the Village Specific Plan is to expand urban development in the Village while preserving valuable scenic and open space amenities, to enhance the character of the marketplace and surrounding areas, to preserve significant natural features, to enhance the City's nature as a resort destination and to open up the lakefront to the public. The Specific Plan also included measures to simplify planning and environmental review procedures for development of the Village, improve the overall visual character of the Village, establish design standards for new development, and provide for adequate circulation and parking.

Since adoption of the Village Specific Plan significant progress has been made in implementing these objectives. Streetscape improvements, including street trees and landscaped planters, decorative street lamps with banners, benches, directional signage and decorative paving, have been installed along Pine Knot Boulevard and Village Drive. A Bavarian/Alpine theme has been incorporated into the architecture of many of the buildings in the Village, and existing buildings have

[3] *Ibid., p. 156.*

been rehabilitated with facade improvements and upgraded sign programs. Two public parking lots have been acquired and improved by the City, and public restrooms were installed. Significant new development has occurred and new businesses established, including retail uses, a major hotel and several restaurants. The resulting development has been beneficial to the district and the City, and the City desires to proceed with continued implementation of the Village Specific Plan. Therefore, the land use map indicates the Village Specific Plan as a separate land use designation, under which the uses and development standards will continue to be governed by the Village Specific Plan as it may be amended from time to time.

Moonridge Specific Plan: The Moonridge Specific Plan, adopted in 1996, was designed to enhance the future development of an area equal to approximately one third of the City's total acreage. The Specific Plan included an elongated portion of the City stretching from the lake edge approximately three miles south to the Forest Service boundary abutting the Moonridge area in the southeast portion of the City, and included a variety of land uses from low density residential to mixed use.

The Moonridge Specific Plan was based on a number of assumptions which no longer appear to be applicable to the City of Big Bear Lake. One of these assumptions was that a pedestrian-oriented corridor could be developed linking the lakefront with the Bear Mountain Ski Resort, which would involve the purchase and demolition of a significant number of existing businesses and public uses in the China Garden area of the City. This course of action would eliminate the existing industrially-zoned portions of the city and impact many existing operations. Because it would be prohibitively expensive for the Improvement Agency or any private developer to purchase and relocate all of the affected businesses in order to redevelop the area as proposed, this objective of the Specific Plan may not present a feasible course of action at this time.

Other concerns with the Moonridge Specific Plan which came to light after adoption of the document included the restrictive nature of the development standards, especially with regard to building setbacks and sign provisions, which were more stringent than in the rest of the City. Property owners within the plan area felt that the Specific Plan did not allow a level playing field for development in the City, and penalized them for their location within the Specific Plan boundaries.

Because of the concerns that have been identified with the Moonridge Specific Plan over the last two years, the decision was made to repeal the Specific Plan concurrently with adoption of the new General Plan and to replace the land use designations in the Specific Plan with zones compatible with the newly-adopted General Plan designations. This decision was made because the Specific Plan was felt to contain infeasible land use policies which could not reasonably be implemented given existing land use conditions and fiscal constraints. It will also allow the property owners within the Moonridge area to be subject to the same development standards as the rest of the City. Therefore, the Moonridge Specific Plan is not shown on the land use map, and General Plan land use designations have been shown in the area formerly encompassed within the Specific Plan boundaries. However, it should be noted that the Moonridge Specific Plan contained design guidelines intended to foster "good mountain design" in the area, and much of this material was felt

to be useful if applied to new development throughout the community. Therefore, some of the community design guidelines from the Moonridge Specific Plan have been incorporated into the Community Design Element of the General Plan.

ECONOMIC DEVELOPMENT ISSUES

As noted above, the State's General Plan Guidelines encourage the consideration of economic issues in development of the land use plan. In addition, the City wishes to establish a policy framework for decision making which integrates planning issues with economic development goals. This section of the Land Use Element pertaining to economic issues has been included to meet these objectives.

Economic Indicators

The City of Big Bear Lake shows economic strength in several areas, including assessed valuation of property, financial deposits and taxable retail sales per capita, according to economist John Husing's 1998 report (cited above). Because property taxes are a large part of local government revenues and an indication of total wealth in a community, the assessed valuation of property is a key economic indicator. Within San Bernardino and Riverside Counties, Big Bear Lake was ranked 30th in assessed valuation out of 48 cities. The assessed valuation per capita measures the property taxes' capacity to support needed city services. With over $200,000 in assessed valuation per capita in 1998, Big Bear Lake ranked 3rd in the Inland Empire for this indicator, after Indian Wells and Rancho Mirage.

Taxable retail sales per capita measures how well the City's sales tax revenue supports the services it must provide to residents. In Big Bear Lake sales tax has gone up over the last ten quarters, with the top generators being general retail stores followed by fast food outlets, grocery stores, service stations and restaurants. Big Bear Lake ranked 4th in the region on taxable retail sales per capita in 1998, which would indicate a healthy tax base to meet municipal service needs. However, this indicator may be somewhat misleading because it does not reflect the service impacts generated by the large number of visitors to the City each year, including the need for additional fire suppression, emergency services, law enforcement, traffic control, solid waste collection and disposal, road maintenance, Village maintenance, public parking lots and restrooms, and so on. Many of these expenses are directly related to the needs of visitors rather than permanent residents, and are important in keeping the area attractive to tourists.

The median sales price for a new home in Big Bear Lake in 1998 was $160,659, up from 1996-97 and placing the City at a ranking of 16th in the two-county region. Median sales price for an existing home in 1998 was $136,500; the City ranked 14th in this indicator. With respect to median income in 1997, the City ranked 35th at $34,894/year. These statistics appear consistent with Big Bear Lake's role as a vacation destination place. High assessed valuation and home sales prices reflect

a strong market for vacation homes, while the relatively low median income levels for permanent residents indicate a lack of high-paying jobs in the area.

Much of the local employment base is associated with services related to tourism, including seasonal employment at the ski resorts, lodging and food services. These employment sectors are traditionally in the lower salary ranges. Other major employers in the area are government, education and health services. Because the permanent population base has stabilized at around 6,000 in the City over the last 8 years, these service industries have not shown significant growth. A 1992 survey of employment within the Big Bear Valley area was conducted by Alfred Gobar Associates, which found that the largest employer of full-time workers in the area was government, with 474 people employed by federal, state, county, special district, city and school agencies; adding part-time employees, these agencies employed 784 people in the Valley. The ski resorts employed a total of 1943 people in 1992, but of these only 141 were full-time employees. Ninety-five people were employed by the health care district, and 110 were employed in commercial lodging establishments.

A review of business license records was conducted to determine what types of businesses exist in the City. Based upon City Finance Division records for October, 1998, a total of 789 active business licenses had been issued by the City. Of these, 293 licenses were issued for businesses providing services, including 49 for professional services (including medical, legal, engineering and accounting); 68 for real estate and related services (including agents, brokers and rental agencies); and 21 for auto-related services. The number of licenses issued to businesses providing food, lodging and recreation totaled 186; of these, 59 provided lodging, 77 provided food and 50 provided entertainment, recreation or related services. Businesses licensed to conduct retail sales included 184 establishments. Of these, sporting goods, apparel, specialty and gift items, antiques and home and garden furnishings were well-represented. Seventy businesses were licensed to provide construction and contracting services, including general contracting and all trades. Thirty-three licenses were issued to home occupations. While this survey of business licenses issued does not provide a complete profile of the local economy, it does indicate the predominant business types within the City, which appear to be oriented to services and retail uses.

Economic Development Studies and Recommendations

Several studies have been conducted by the City since incorporation to evaluate economic conditions and development strategies[4]. Many of the conditions described in these reports, as well as the

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[4] Williams-Kuebelbeck and Associates, Inc., *Economic and Demographic Analysis–City of Big Bear Lake,* 1983.

Landerman Associates, Inc., *Economic and Tourism Development Strategy,* 1985.

Christensen & Wallace, Inc., *Report on the Impact of Visitors on the City of Big Bear Lake,* 1991.

Alfred Gobar Associates, *Chamber of Commerce Marketing Program Critique and Tourism Recommendations,* 1992.

consultants' recommendations, remain relevant. Although some of the recommended actions involve marketing programs and financing strategies which are not directly related to the General Plan, several issues have been raised which may affect long-term planning in the City. The following points summarize the findings and recommendations of these studies which may have planning implications. The italicized text indicates that this material was summarized from the reports listed the bottom of this page, and may not reflect the adopted policies of the City of Big Bear Lake.

1. **What is the economic base for Big Bear Lake?** *In 1983, Williams-Kuebelbeck concluded that "Big Bear Lake is predominantly a weekend resort community with a tourist-based economy." Weekend occupancy for lodging in the City was high, and mid-week occupancy was low. This situation remains unchanged. Since discretionary travel is based on disposable income, fluctuations in tourism may result from the general economic conditions within the market area. Seasonal fluctuations in tourism are also evident, with spring being the slowest season. Visitors peak in the summer (July-September) and the winter (January-March). Although tourism is high in the winter due to the ski season, retail sales tend to be low during this time. Visitors accounted for about 70 percent of the sales tax generated in the City in 1991, and residents accounted for 30 percent.*

   According to Gobar, other elements that support the economic viability of the Valley include local expenditures by retirees, Big Bear Valley residents who commute to jobs elsewhere, and industries that export the bulk of their goods and services to consumers outside the local economy. For 1992, Gobar estimated that support of Valley residents was: retirees - 12.5 percent; services to the local population - 28.2 percent; direct support by visitors, export industries and commuter jobs - 59.3 percent.

   Christensen and Wallace found that Big Bear Lake was the major shopping area for the Big Bear Valley in 1980, and according to Gobar this situation remains unchanged. In 1993, the majority of retail sales in the City came from visitors, and of these, the largest percentage were residents of the Big Bear Valley. In 1991, over 50 percent of the visitors from adjacent mountain communities came to Big Bear to shop, and another 13 percent came to dine. At that time there was little "leakage" in terms of sales tax dollars flowing from Big Bear Lake residents to other nearby areas; rather, sales tax dollars flowed from other mountain areas into the City of Big Bear Lake. Big Bear Lake was determined to be

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Alfred Gobar Associates, *City of Big Bear Lake Economic Base Study,* 1993.

Alfred Gobar Associates, *Economic Impact and Fiscal Impact Summary Report,* 1993.

a significant market center both for recreational and non-recreational visitors on the hill, drawing from adjacent mountain communities.

2. **What is Big Bear's market area?** *According to Landerman Associates, the effective market area for Big Bear as a resort destination point is about a 4-hour drive, or 180 miles, which would include the Counties of Los Angeles, Orange, San Diego, San Bernardino, Ventura and Riverside. Population growth in these counties will increase tourism in the Big Bear Valley. Within Los Angeles County, Big Bear faces competition as a ski resort from the Mammoth area. However, Big Bear is the closest ski area to San Diego County, which represents a significant market area to be targeted. A 1991 survey found that 2 out of 5 visitors are from the six metropolitan counties in southern California; over one half of these come from Los Angeles County. Neighboring Riverside and San Bernardino Counties generated a low percentage of visitors who made retail purchases in Big Bear. One fifth of the visitors surveyed came from adjacent mountain communities, of which ninety percent were from Big Bear City.*

3. **Is Big Bear an escape resort or destination resort?** *Because of its proximity to a large metropolitan area, Christensen and Wallace concluded that Big Bear attracts visitors whose primary objective is to escape the crowds and smog of nearby cities. Unlike "destination" resorts which depend upon attractions that lure visitors from around the country, if not the world, Big Bear Lake's visitors are likely to be neighbors from surrounding hill communities or from the valleys below. According to Gobar, this classification could have a significant impact on the visitor-oriented economic base of the City. Elements common to a destination resort include an enroute location, a major airport, first-class full-service lodging, natural attractions, man-made attractions, compact size with Village focal point, night-time entertainment, high-end shops and restaurants, children's activities and personalized and professional service. The absence of some of these elements has suppressed Big Bear Lake's ability to capture more affluent visitors.*

4. **Why do people come to Big Bear?** *Landerman Associates found that a survey conducted by the U. S. Forest Service in 1985 indicated that driving for pleasure is one of the most popular activities in the Valley. Other popular activities included skiing, hiking and camping, watersports, fishing and special events. In 1991, Christensen and Wallace found that day visitors made up 35 percent of the recreational visitors to Big Bear Lake; these people represent a visitor group that should be enticed to stay longer or to return. A survey by Landerman Associates in 1985 identified as the "high potential" group those people who visit the valley once but don't return. When asked their reasons, these people responded that they were looking for more amenities, more children's activities and evening entertainment.*

5. **Where do they stay?** *Based on a survey conducted by Christensen and Wallace in1991, the most popular rental was the cabin, used by almost 19 percent of visitors, followed by the*

private home rental (9.8 percent), motels (7.8 percent and hotels (6.8 percent). Private vacation rentals were estimated to have an occupancy level of 19 percent in 1993. Because they serve the needs of larger groups (4-8 guests), guests utilizing private vacation rentals were deemed likely to have a lower than average cost impact on the community, representing an efficient use of rental units and generating less local vehicle traffic per visitor. Of the 5500 vacant homes in the City in 1990, 1300 were estimated to be used as private vacation rentals (Gobar). Gobar also found that in general, the City's lodging facilities are underutilized, with only a 39 percent occupancy rate overall.

6. **What are Big Bear's tourism assets?** *The consultants listed four seasons, abundant scenic, recreational and cultural attractions, adequate visitor services, high capture rate, 14 million people within 180 miles, promotion activities and high market area awareness.*

7. **What are Big Bear's tourism liabilities?** *According to the consultants, highway conditions and traffic deter visitors, market proximity favors day trips, there is a lack of evening activities, a lack of first class hotel and golf course inhibit commercial business, and promotion efforts have been sporadic and uncoordinated.*

8. **What must Big Bear Lake do to enhance tourism?** *According to the consultants, the Big Bear communities should enhance infrastructure, including water, sewer and flood control facilities; construct street and highway improvements, especially improving Hwy 330, resurfacing city streets and widening Big Bear Boulevard; improve public lakefront access; provide public winter snow play areas; provide additional parking; consider an aerial tramway; develop more commercial outlets and attractions that will keep visitors in the City overnight and improve year-round attractiveness. In his reports, Gobar concluded that the most efficient opportunity to expand the Valley's economy is to accommodate higher levels of visitor activity during non-peak periods, generating additional income without significant additional investment in facilities. This can be done by attracting convention and meeting business, and by expanding the times of year that people visit the valley. Key to a strong convention and business meeting element are a resort hotel and a full 18-hole golf course. Additional recreational facilities could expand the drawing power of the area and keep visitors in the Valley for a longer period. Obstacles to visitors should be removed through improved transportation links. The lake level should be stabilized. Code enforcement should be used to correct deficiencies in residential facilities, increase property valuation and attractiveness of the community to visitors. The Big Bear Valley's historical resources could be exploited as tourist attractions. A shoreline pedestrian pathway extending along the marinas could be developed, along with a small-scale shoreline specialty retail center. Vehicular access in Village could be improved. Enhanced access could be provided from the east side of the Valley, Moonridge Road could be widened, potholes repaired and general driving conditions improved for public safety and convenience. In addition, Gobar recommended that the City provide aesthetically enhanced view corridors, especially along*

Big Bear Boulevard, Moonridge Road, the Village and the lake front, and that more tourist interaction with the lake front be provided.

After reviewing the economic consultants' recommendations it is clear that many of the proposed actions go beyond the jurisdiction or authority of the City of Big Bear Lake to accomplish on its own. For example, needed transportation and access improvements are a Valley-wide issue, lake management is the responsibility of a separate board-governed district, the Valley's major historical attractions are outside of the City, land for an 18-hole golf course does not exist solely within the City, and so on. In order to meet the economic development goals which have been suggested, it will be necessary for the City to cooperate and coordinate with other agencies and jurisdictions. Therefore, policies and programs have been included in this Element to address regional economic development needs and strategies.

It should also be noted that several of the programs and improvements recommended by the economic consultants have been implemented. Most notably, improvements in the Village have created a resort-oriented specialty shopping, dining and entertainment district with an aesthetically improved streetscape, parking and public restrooms; a major hotel has been constructed in the Village and several new businesses have been established; Big Bear Boulevard has been widened to four lanes through the central portion of the City; night-time activities have been enhance by addition of a movie theater and restaurants and clubs offering entertainment; the sewer and water systems have been improved; and two lake-front parks have been acquired (Pine Knot-Rotary has been improved, and Boulder Bay is in the planning state). The City will continue to plan for and implement strategies to enhance economic development, as specified in the goals, policies and programs of this element.

Filming in Big Bear Lake

One area of economic growth in the City over the past several years is the film industry. Big Bear has a history with the motion-picture industry that dates back almost as far as the inception of film making itself. The great pioneers of film, D. W. Griffith and Cecil B. DeMille, shot some of their most memorable films in Big Bear. For over eighty years film makers have continued to come to Big Bear Lake to shoot films, television series, commercials and still photography. In 1993 the Film Office was established to promote and facilitate production in the Big Bear Valley. The Big Bear Lake Film Office provides location scouting assistance, liaison services with the community and various governmental agencies, permit information and processing, information on lodging, restaurants, support services and local crews, maps and weather information, production resource guides, photos from its location library, and 24-hour assistance. These services are provided free of charge to users. The film office also promotes the Big Bear Valley through advertising, direct mail campaigns, trade shows, press releases, tours and a production guide. In 1998 the Film Office launched an Internet web site featuring location photos, a climate chart, sunrise/sunset charts, maps, a filmography and listings of area services. This site averages 260 hits per day.

Big Bear Lake has one advantage over nearly every other competitor offering alpine terrain and scenery: proximity to the Los Angeles film industry. With the exception of the Inland Empire's other mountain communities, all other alpine locations are further from Los Angeles than Big Bear Lake. This proximity allows production crews to have their families come up over the weekends, or crews to return home on days off. It also allows for less expensive transportation charges in comparison with other locations. Big Bear's proximity is the primary selling point in its marketing campaign. However, Big Bear's disadvantages for the film industry include a lack of sound stages and equipment rental, and higher union labor rates due to its distance from the Los Angeles studio zone.

Throughout the year the film office obtains economic figures from production companies. The film office estimates that the total economic benefit to the community from film, television and still photography in 1998 was over $1.4 million. Forty-eight percent of this amount was spent on lodging for cast and crew, 22 percent was paid out in wages to local crew, extras and safety officers, 11 percent went to catering and meals and another 11 percent covered location fees and permits. The remainder was spent on car and truck rentals, fuel, hardware supplies, greenery, photocopying, dry cleaning and other miscellaneous expenses. Big Bear hosted 67 projects in fiscal year 1997-98, including 9 feature films, 16 commercials, 32 still photography shoots, 3 television series and 7 music videos, industrials, documentaries or short films. Crews shot a total of 183 production days in Big Bear, an increase in production over the previous year.

Economic Development Implications for Planning

Based on the economic studies completed to date and on the City's vision for year 2020, clearly Big Bear Lake is and will continue to be a tourist destination point drawing on the greater southern California metropolitan region as a market area. The Big Bear Valley is currently classified as an escape resort rather than a destination resort; in order to modify this role, construction of major transportation improvements and visitor attractions would be needed. Until such improvements occur, Big Bear Lake has the opportunity to be the most popular escape resort serving southern California, filling this market niche by offering all-season recreation, including visitor-oriented shopping and entertainment, in a setting of outstanding beauty.

Many of the consultants' recommendations for economic development pertain to infrastructure enhancements, which are addressed in the Circulation and Public Services Elements of the General Plan. Other recommendations relate to enhancing the visual attractiveness of the community, which is addressed in the Community Design Element. The Land Use Plan has been crafted to designate large areas of the community for visitor and recreation uses, supporting the City's economic development goals for tourism. In addition, the Land Use Map contains sufficient land in the general commercial designation to accommodate a shopping district providing goods and services needed by residents throughout the mountain communities. Public lake access has been provided for at Pine Knot Rotary Park and will be enhanced at Boulder Bay. In addition, a master plan will be prepared and implemented for public lake access points, as outlined in the Parks, Recreation and Open Space

Element. Finally, the City will continue to support filming as a viable economic activity in the area, and will seek to preserve the qualities which make the community attractive to that industry.

FUTURE DIRECTIONS

As the City of Big Bear Lake continues to grow, its mix of land uses and its needs can be expected to change. While the Land Use Element helps to provide a degree of predictability in how the community will develop, there will be a periodic need to reevaluate the land use plan for the City and make adjustments. State law provides for regular amendments to the General Plan and its elements, including the Land Use Map. As future needs evolve, the community will have the opportunity to adjust and fine-tune the Land Use Element and map to address changing circumstances, take advantage of emerging opportunities and remedy potential land use conflicts. Consistent with past planning efforts of the City, the Land Use Element continues to support the logically staged extension of public infrastructure systems and the urban land uses they support. Therefore, it encourages in-fill development in those areas which have undergone substantial development prior to encouraging development in outlying areas.

Putting the Land Use Element into effect is accomplished by enforcing the City's Zoning and Subdivision Ordinances, and other ordinances, codes and regulations. The City's regulatory environment requires that development proposals meet certain criteria in the General Plan and undergo development plan review, which may be subject to public hearings. The following section of the Element contains goals, policies and programs for land use.

CITY OF BIG BEAR LAKE
GENERAL PLAN LAND USE MAP

Adopted by City Council Resolution No. 99-36, August 23, 1999

General Plan Amendments:
City Council Resolution No 2000-11, May 8, 2000

LEGEND

General Plan Land Use

- Rural Residential
- Equestrian Estates
- Single Family Residential-3
- Single Family Residential-4
- Multiple Family Residential
- Commercial General
- Commercial Recreation
- Commercial Visitor
- Commercial Services
- Industrial
- Public Facilities
- Open Space
- Roads
- Village Specific Plan
- Camp Overlay

Please Note:

ALWAYS CONFIRM LATEST LAND USE DESIGNATION THROUGH THE CITY PLANNING DIVISION. (909) 866-5831

2000 0 2000 4000 6000 8000 10000 Feet

LAND USE GOALS, POLICIES AND PROGRAMS

GOAL L 1

Create a vision for development of the City which provides for orderly, functional patterns of land uses, sensitive to the natural environment and meeting the long-term social and economic needs of the community.

Policy L 1.1
Adopt and maintain a land use map which depicts the type and intensity of land uses permitted in the planning area and provides for varying residential life styles, business activities, open space areas and public uses, as outlined in the following land use designations, except that in no case shall the land use map be interpreted as a guarantee that the maximum permitted density or intensity of land use specified by the map designation be allowed on any given parcel of land, regardless of site conditions, environmental impacts or development constraints. Actual permitted density or intensity on any given parcel will be evaluated at the time of project approval based upon the proposed project's compliance with all applicable General Plan policies, City codes and ordinances and State law.

Rural Residential (RR)

The Rural Residential designation is intended to establish areas for single family residential uses on large lots providing opportunities to enjoy a rural lifestyle, and to ensure that land in the planning area having topographic and environmental constraints and minimal access to infrastructure is allowed to develop at a lower intensity until such time as constraints are mitigated and infrastructure becomes available to support more intensive uses. The typical use would be single family homes on lots of two and one half gross acres or larger. Accessory uses may include keeping of horses, domestic animals commonly kept as household pets, storage buildings, private recreational facilities such as tennis courts, dependent housing units, vacation rentals and home occupations. Conditionally permitted uses include bed and breakfast establishments with five or fewer guest rooms, schools and churches. Some horticultural uses may be consistent with this designation, such as tree farms and nurseries. This designation is appropriate at the interface between the City's more intensive urban development and undeveloped land, including U. S. Forest Service property; within hillside areas; within areas having significant stands of trees, mountain meadow habitat, riparian habitat, or other features which can best be protected with lower density development; and in areas lacking infrastructure such as paved roads, sewer, water and dry utilities. At 2.5 persons per unit, and assuming a maximum buildout occupancy rate of 50 percent permanent resident occupancy, this designation would yield an estimated population of 320 persons per square mile or 0.5 persons per acre. Actual permitted densities may decrease pursuant to the slope density ratios established in the slope ordinance and environmental conditions.

Equestrian Estates (EE)

The Equestrian Estates designation is intended to provide areas for single family residential uses on larger lots which can accommodate the keeping of horses and accessory structures, including corrals and stables. The maximum permitted density per acre is one (1) unit per acre. The typical use would be single family homes on lots of one acre or larger. Accessory uses may include keeping of horses, domestic animals commonly kept as household pets, storage buildings, private recreational facilities such as tennis courts, dependent housing units, vacation rentals and home occupations. Conditionally permitted uses include bed and breakfast establishments with five or fewer guest rooms, schools and churches. This designation is appropriate in hillside areas and as a transitional use between rural areas and suburban densities. The area must be served by public sewer and water and other infrastructure needed to support the intensity of use. At 2.5 persons per unit, and assuming a maximum buildout occupancy rate of 50 percent permanent resident occupancy, this designation would yield an estimated population of 800 persons per square mile or 1.25 persons per acre. Actual permitted densities may decrease pursuant to the slope density ratios established in the slope ordinance and environmental conditions.

Single Family Residential (SFR)

This designation is intended to provide for single family residential uses at densities varying from two to four units per acre. The maximum permitted density per acre will be shown by a number following the SFR designation on the map (SFR-2, SFR-3 and SFR-4) The typical use would be single family homes on lots of a minimum of 7,200 square feet. Accessory uses may include keeping of domestic animals commonly kept as household pets, storage buildings, dependent housing units, vacation rentals, home occupations, and private recreational facilities such as tennis courts and boat docks. This designation is not intended for the keeping of horses; however, existing equestrian uses in SFR areas may be amortized according to the schedule established by the Development Code. Conditionally permitted uses may include bed and breakfast establishments with five or fewer guest rooms, schools and churches. This designation is appropriate in flatter areas with minimal environmental constraints and adequate access. The area must be served by public sewer and water and other infrastructure needed to support the intensity of use. At 2.5 persons per unit, and assuming a maximum buildout occupancy level of 50 percent permanent resident occupancy, this designation would yield the following permanent population intensities:

2 du/ac: a maximum of 1,600 persons per square mile or 2.5 persons per acre
3 du/ac: a maximum of 2,400 persons per square mile or 3.75 persons per acre
4 du/ac: a maximum of 3,200 persons per square mile or 5 persons per acre

Actual densities may decrease pursuant to the slope density ratios established in the slope ordinance and environmental conditions.

Multiple Family Residential (MFR)

The Multiple Family Residential designation provides for residential uses with densities ranging up to a maximum of 12 units per acre. Typical primary uses within this designation include a variety of attached and detached dwelling unit types, including condominiums, apartments, duplexes, triplexes and fourplexes, and single family detached units (which may include manufactured housing) on the same lot or separate lots. Accessory uses may include keeping of domestic animals commonly kept as household pets, storage buildings, dependent housing units, vacation rentals and home occupations. Conditionally permitted uses may include schools, churches, and bed and breakfast establishments, hotels, motels, lodges, time-share accommodations and other similar forms of commercial transient lodgings, and mobile home parks provided that the density of guest and dwelling units does not exceed 12 units per acre within this designation. This designation is appropriate within areas having existing or planned residential uses at densities over four units per acre, attached dwelling units and/or mobile home parks. The area must be served by adequate infrastructure and services needed to support this intensity of development. Access to supportive commercial services, transit lines and public services should be considered when evaluating location of this designation. At 2.5 persons per unit, and assuming a maximum buildout occupancy level of 50 percent permanent resident occupancy, this designation would yield a permanent population intensity of 9,600 persons per square mile or 15 persons per acre. Actual permitted density will be based upon site specific conditions, including parcelization, environmental constraints, and infrastructure conditions. A minimum of 35 percent of the lot must be landscaped open space.

Commercial – General (CG)

The Commercial–General designation is intended to provide for a broad range of commercial goods and services including both long-term needs and durable goods as well as convenience items needed on a regular basis. The market area for this designation may include the City, the Big Bear Valley, and adjacent areas. Typical uses within this designation include grocery and drug stores, home furnishings and appliances, service stations, convenience stores, gift shops, restaurants, nightclubs and bars, motion picture theaters, department stores, liquor stores, jewelry stores, automobile sales and rentals, auto service and repair, banks and financial institutions, personal storage facilities, office uses, lumber yards and equipment rental serving the general public, and other similar uses. Accessory uses may include caretakers units and/or limited residential uses not to exceed 3 (three) units per parcel or 12 (twelve) units per acre, whichever is less; all required landscaping, open space and parking for the residential units must be provided in addition to that required for the primary commercial use. The Commercial–General designation also includes those uses permitted within the Commercial–Services designation and the Commercial–Visitor designation.

This designation is appropriately located with access from a major street or highway. Development sites should have relatively flat topography, access to adequate infrastructure to support the use, and environmental constraints including but not limited to flooding,

seismic hazards, geological conditions, biological resources, contamination, and cultural resources, should be mitigable. Where this designation is located adjacent to less intensive residential uses, appropriate transitions and buffers should be provided to mitigate potential land use conflicts. The maximum Floor Area Ratio (FAR) within this designation shall not exceed 0.5, and the minimum landscaped open space requirement shall be 20 percent, except as otherwise provided in the General Plan.

Commercial – Recreation (CR)

The Commercial–Recreation designation is intended to provide for a wide range of recreational facilities and services serving a regional market area and providing destination-oriented recreation and entertainment uses for visitors and tourists as well as residents of the Big Bear Valley. Typical uses include marinas, fishing docks and facilities, boat storage areas, snow play areas, ski resorts, golf driving ranges, water slides, batting cages, skating rinks, arcades, BMX tracks, recreational vehicle parks, commercial riding stables, camps and campgrounds, zoos and similar recreational-oriented uses, along with supportive commercial uses such as hotels and lodging facilities, markets and eating establishments, and parking lots associated with these uses whether on- or off- site. Accessory uses may include caretakers units and/or limited residential uses not to exceed 3 (three) units per parcel or 12 (twelve) units per acre, whichever is less; all required landscaping, open space and parking for the residential units must be provided in addition to that required for the primary commercial use.

This designation may be located in or adjacent to natural features providing recreational opportunities, including Big Bear Lake, mountain areas for winter sports, and areas providing for golf, hiking, biking and similar uses. Access and infrastructure should be appropriate to the proposed intensity of use. Where this designation is located adjacent to less intensive residential uses, appropriate transitions and buffers should be provided to mitigate potential land use conflicts. The maximum building Floor Area Ratio shall not exceed 0.5, and the minimum landscaped open space requirement shall be 20 percent, except as otherwise provided in the General Plan.

Commercial – Visitor (CV)

The Commercial–Visitor designation is intended to provide for goods and services oriented to serving the needs of visitors to the City, vacationers, and the traveling public. Typical uses within this designation include hotels, motels, lodges, bed and breakfast facilities, time-share accommodations and conference and convention facilities; the maximum density of guest units in these facilities within the CV designation is limited only by the capacity of the site to accommodate the proposed intensity of use. Other typical uses include eating establishments, retail uses oriented to visitors such as gift shops and galleries, convenience markets, sports equipment sales and rental, real estate offices and vacation rental agencies, bait and tackle shops, resorts, entertainment uses, museums and similar uses. Office and professional uses which do not detract from the visitor-oriented character of this designation

may also be allowed. Accessory uses may include caretakers units and/or limited residential uses not to exceed 3 (three) units per parcel or 12 (twelve) units per acre, whichever is less; all required landscaping, open space and parking for the residential units must be provided in addition to that required for the primary commercial use.

This designation is appropriately located adjacent to major streets and highways frequented by travelers, or adjacent to recreational facilities. Land within the CV designation should be relatively free of development constraints; however, where appropriate due to views or proximity to recreational facilities, Visitor Commercial uses may be appropriate in hillside areas provided that all development impacts can be mitigated and requirements can be met. Infrastructure should be available to support uses in this designation. Where this designation is located adjacent to less intensive residential uses, appropriate transitions and buffers should be provided to mitigate potential land use conflicts. The maximum Floor Area Ratio shall not exceed 0.5, and the minimum landscaped open space requirement shall be 20 percent, except as otherwise provided in the General Plan.

Commercial – Services (CS)

The Commercial–Services designation is intended to provide for a wide range of administrative, professional, and community services to meet the needs of local residents as well as visitors to the area, which do not primarily involve retail sales but which are oriented to providing services in an institutional or office setting or service establishment. The intent of this designation is that traffic, noise, light and glare and activity levels will be less intense than those typically found in the other commercial land use designations; therefore, this district may be appropriately used to buffer more intensive commercial uses from less intensive residential uses. Typical uses may include medical practitioners, laboratories and associated facilities, provided that outside activities may require a conditional use permit; financial services; personal services; business services; professional services; charitable and religious organizations, service clubs and lodges; governmental and quasi-governmental agencies occupying leased office space; libraries and reading rooms; private schools and training facilities; meeting facilities; telecommuting facilities; and similar uses. Accessory uses may include caretakers units and/or limited residential uses not to exceed 3 (three) units per parcel or 12 (twelve) units per acre, whichever is less; all required landscaping, open space and parking for the residential units must be provided in addition to that required for the primary commercial use.

Sites should have adequate access and infrastructure available to support the use, and any environmental constraints should be mitigable. Where this designation is located adjacent to less intensive residential uses, appropriate transitions and buffers should be provided to mitigate potential land use conflicts. The maximum Floor Area Ratio (FAR) shall not exceed 0.5, and the minimum landscaped open space requirement shall be 20 percent, except as otherwise provided in the General Plan.

Industrial (IND)

The Industrial designation is intended to provide a suitable location for industrial, manufacturing and more intensive commercial uses within the City to meet the needs of the local community, in an area protected from encroachment by incompatible uses and adequately buffered from less intensive uses. It is not the intent of this designation to provide for the industrial, manufacturing or distribution needs of a larger market area, due to access constraints limiting large-scale distribution operations within the City and the limited amount of land available for this type of use, but to provide adequate area to support the handling, disposal, fabrication and distribution of goods and materials needed locally. Typical uses include lumber yards and equipment rental serving primarily other businesses; sand and gravel operations including stockpiling, crushing and screening; batch plants, paving companies and snow plow operations; contractors storage and equipment yards; heavy vehicle repair such as body shops and engine rebuilding; vehicle storage and impound yards; truck and recreational vehicle storage and repair; boat storage and repair, solid waste transfer stations and disposal sites; commercial uses which by the intensity of the use are not appropriate in other areas; and similar uses. The IND designation is appropriate within areas occupied or planned to be occupied by industrial and other compatible uses, which have adequate access to major streets and adequate infrastructure to support proposed uses. Where the designation abuts less intensive commercial and residential uses, adequate transitions and buffers shall be provided. The maximum Floor Area Ratio (FAR) shall not exceed) 0.5, and the landscaped open space requirement shall be 20 percent, except as otherwise provided in the General Plan.

Public Facilities (P)

The Public Facilities designation identifies land which is or will be utilized for various types of public facilities, including but not limited to schools, parks, hospitals, public safety and governmental facilities, sewer and water facilities, trash collection and solid waste handling sites, and similar uses. Existing or acquired public facility sites are designated P on the land use map; however, public facilities may be allowed in other land use designations as established by the underlying zoning. The maximum Floor Area Ratio (FAR) within this designation is 1.0, and the minimum landscaping requirement shall be as determined appropriate by the reviewing authority.

Open Space (OS)

The Open Space designation is intended to identify and reserve land for both natural and active open space uses which may be either publicly or privately owned. The designation identifies existing parks and acquired but not yet built park sites within the community, as well as lands dedicated to the City or other appropriate entity for open space purposes. The designation is appropriate to protect sites with physical limitations such as flood plains, steep terrain or significant natural resources, including endangered species and habitats such as mountain meadows, eagle perch sites and pebble plains. Typical uses permitted within the

open space designation include recreational uses (both passive and active), horticulture, agriculture, wildlife preserves or similar uses.

Camp Overlay (CAMP)

The Camp Overlay designation is intended to provide for the continuation of existing camps and conference center facilities within the City for as long as such facilities are in operation, and to facilitate the ultimate conversion of these uses to other uses when and if the camp uses are discontinued, so as to ensure that the ultimate re-use of the property will be compatible with adjacent development patterns. When the camp use is discontinued, the underlying land use designation will take effect and the Camp Overlay designation shall be removed from the Land Use Map; this action may be taken without the need for a General Plan Amendment. Typical uses within the overlay designation include camps and conference centers, along with accessory uses and buildings which may include but are not limited to bookstores and gift shops related to the primary use, recreational facilities, classrooms, worship facilities, dormitories and other sleeping quarters, group dining and entertainment facilities, and other similar uses. The Camp Overlay is applied to existing camp or conference center facilities located within the planning area at the time of General Plan adoption, and may be applied to future facilities when appropriate. The intensity of this use classification shall be established in the original approval documents for each of the facilities to which it is applied, as they may be modified from time to time by discretionary approval of the City.

Program L 1.1.1

Adopt the Land Use Map concurrently with the General Plan and update the map as needed in the future through the General Plan Amendment process.

Responsible Party: Planning Division to prepare map; Planning Commission to review and recommend map; City Council to adopt map.

Schedule: Adopt in 1999; maintenance ongoing.

Policy L 1.2

Ensure that the zoning map, development code, specific plans and other applicable development-related ordinances are brought into conformance with the General Plan, as soon as practical after the General Plan is adopted.

Program L 1.2.1

Revise and adopt amendments to the City's Development Code, Zoning Map, Village Specific Plan, sign ordinance and other documents as needed to ensure conformance of these provisions with the General Plan.

Responsible Party: Planning Division to prepare amendments; Planning Commission to review and recommend amendments; City Council to adopt amendments.

Schedule: Commence after General Plan adoption; amendment process to be completed by 2001.

Policy L 1.3
Ensure that all new development within the City conforms to all applicable provisions of the General Plan.

Program L 1.3.1
Through the development review process, evaluate each new development proposal with respect to the goals, policies and maps of the General Plan, and approve a development project only when it can be found that the project conforms with the General Plan.
Responsible Party: Development Review Committee, Planning Division, Planning Commission and City Council.
Schedule: Ongoing.

Policy L 1.4
Coordinate with other jurisdictions and agencies in the Big Bear Valley to address land planning issues of regional concern.

Program L 1.4.1
Provide information to other agencies regarding development projects within the City, and provide comments to those agencies regarding development projects proposed outside the City, as appropriate.
Responsible Agency: Planning Division
Schedule: Ongoing.

Program L 1.4.2
Meet with other agencies as needed to discuss long-range planning issues in the Valley, and take further action as deemed appropriate.
Responsible Agency: Staff, City Manager, City Council
Schedule: Ongoing.

Policy L 1.5
Ensure that the boundaries of the City's incorporated limits and adopted sphere of influence are appropriate to meet the goals and objectives of the community.

Program L 1.5.1
Pursue annexation of land within unincorporated County "islands" adjacent to Big Bear Lake, in order to ensure that the lakeshore is developed and maintained in accordance with City goals and policies.
Responsible Agency: Planning Division to initiate annexation applications; City Council to approve.
Schedule: 1999 and ongoing.

Program L 1.5.2
Periodically review the City's sphere of influence to determine whether boundary adjustments are needed and appropriate.
Responsible Agency: City Council
Schedule: Ongoing, as needed.

Policy L 1.6
Ensure that land uses permitted within the City are developed in a manner sensitive to the natural environment, mitigating impacts on natural resources and at an appropriate level of intensity given the topography and environmental conditions of each site.

Program L 1.6.1
On the land use map, designate land uses which are appropriate to the natural environment throughout the planning area in consideration of slopes, drainage courses, sensitive habitat, natural hazards, availability of infrastructure and compatibility with adjacent uses.
Responsible Agency: Planning Division to prepare map, Planning Commission and City Council to review and adopt.
Schedule: 1999 and ongoing.

Policy L 1.7
Ensure compatibility between land uses which have different functions, requirements and impacts.

Program L 1.7.1
In the Community Design Element and the Development Code, adopt standards for transition areas between potentially incompatible uses, and apply these standards to new development through the design review process.
Responsible Agency: Planning Division to draft standards, Planning Commission and City Council to review and adopt.
Schedule: Commence drafting standards1999, adopt standards by 2001. Implementation ongoing.

Policy L 1.8
Preserve the scenic mountain backdrop of Big Bear Lake through adoption of guidelines for hillside development, including the following:

a. Development in hillside areas should minimize grading, conform to natural topography, preserve ridgelines and exhibit sensitivity to natural landforms.
b. Development should be restricted on natural slopes of fifty percent and greater.
c. Visually prominent ridges and hillsides should be retained in a natural condition; where hillside grading occurs, the final graded contours should match and blend with natural contours and slopes should be finished in a manner to resemble natural topography.

Program L 1.8.1
Implement the City's Slope Density Ordinance (Ordinance 90-191) as it may be amended from time to time, and revise this ordinance if needed to conform with the General Plan.
Responsible Agency: Reviewing authority
Schedule: Ongoing.

Policy L 1.9
Identify areas within the City which, through deterioration of structures, high vacancy rates, vandalism or health and safety concerns, merit special attention, and develop programs to revitalize these areas.

Program L 1.9.1
Develop a coordinated effort between City departments and agencies administering the municipal, zoning and building codes, law enforcement, fire prevention, public health, housing and social services, to upgrade deteriorated areas and/or structures within the City.
Responsible Agency: City Manager and staff, City Council, Improvement Agency
Schedule: Ongoing

GOAL L 2
Adopt land use and development policies which encourage growth and diversification of the City's economic base.

Policy L 2.1
Promote the Village district as the primary tourist-oriented shopping and entertainment district within the Valley, through continued implementation of the Village Specific Plan as it may be amended from time to time, and through coordinated planning and implementation of parking and infrastructure improvements to the district.

Program L 2.1.1
In cooperation with Village business and property owners, undertake a comprehensive review of parking needs in the Village and develop a master plan for parking, which may address but not be limited to consideration of additional City-owned lots, formation of a parking improvement district, developer contributions to parking improvements, street closures in certain locations, or other measures as appropriate.
Responsible Agency: Engineering Division, Planning Commission, City Council, Improvement Agency
Schedule: Complete and adopt by 1999; implementation ongoing.

Program L 2.1.2
Evaluate the feasibility of constructing a "Village Green" as a central focal point for the Village and a site for special events; this evaluation should include an analysis of suitable sites and potential financing mechanisms.
Responsible Agency: Planning Division, City Manager
Schedule: 2003

Policy L 2.2
Promote the city's General Commercial areas as a major market center for mountain residents and visitors, by providing adequate land for regional shopping center development and ensuring that such development occurs and is maintained in an attractive and convenient manner.

Program L 2.2.1
Adopt land use and zoning designations and standards for general commercial development, recognizing existing shopping centers and districts and setting aside adequate land for new commercial development.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 2001

Policy L 2.3
Promote Big Bear Lake as a major resort destination for southern California, and provide for development of visitor-oriented facilities, services, activities and attractions to enhance tourism.

Program L 2.3.1
Adopt land use and zoning designations and standards for visitor commercial and recreation-oriented development.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 2001

Program L 2.3.2
Encourage and support development of major facilities oriented to attracting visitors to the Big Bear Valley, which may include but not be limited to the following facilities:
a. An 18-hole golf course;
b. A high-altitude training facility;
c. A sports complex for baseball, soccer, softball and other field sports;
d. A two- or four-year college or satellite campus.
Responsible Agency: City Manager, City Council, staff as directed.
Schedule: Ongoing.

Program L 2.3.3
Develop, adopt and implement a master plan for trails, including bikeways, hiking and walking trails, to enhance opportunities for visitors to enjoy the City and surrounding scenery.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: Adoption by 2002; implementation ongoing.

Program L 2.3.4
Develop, adopt and implement plans to provide for public lakefront access, to enhance opportunities for visitors to enjoy the lake.
Responsible Agency: Building and Safety Division, Planning Commission, City Council
Schedule: Adoption by 2002; implementation ongoing.

Program L 2.3.5
Develop and implement standards for special events to simplify the permitting process while protecting public health and safety and limiting impacts to residents and businesses.
Responsible Agency: Planning Division to draft standards, City Council to adopt
Schedule: Adoption by 2000; implementation ongoing.

Policy L 2.4
Coordinate with other local agencies to enhance economic development opportunities for the Big Bear Valley through regional cooperation on access, circulation, infrastructure, development of major facilities, marketing and promotion.

Program L 2.4.1
Participate in inter-agency meetings on economic development for the Big Bear Valley, and provide additional support as appropriate.
Responsible Agency: City Manager, City Council
Schedule: Ongoing.

Policy L 2.5
Provide information and assistance to property owners, business owners and developers to assist them in establishing or expanding businesses within the City, while ensuring that new development conforms with City policies and standards, through the following means:

a. Provide simple, clear application forms and written explanations of City development review processes and requirements;
b. Provide information on demographic and economic conditions in the City to assist the public in evaluating business opportunities;
c. Work towards establishment of a geographic information data base and mapping system within the City to increase the amount of information available to the public on zoning, land use and infrastructure planning and other pertinent data;
d. Expedite and simplify permit processing to the extent feasible, and provide individualized assistance to persons requesting help with City procedures;

e. Maintain frequent and open communication between representatives of the City and the business community, to share ideas and resources on promoting economic development;

f. Provide public information materials on City programs and processes, participate in public forums on business issues, and use City newsletters and other means to provide information to businesses and citizens.

Responsible Agency: Planning, Building and Safety and Engineering Divisions; City Manager; other staff as directed.
Schedule: 1999 and ongoing.

GOAL L 3
Provide for development of housing opportunities to meet the long-term needs of permanent and part-time residents as well as visitors, and all demographic and economic segments of the population, while preserving the character and integrity of residential neighborhoods.

Policy L 3.1
Adopt the following policies for designating residential uses within the City to enhance the quality of residential neighborhoods:

a. Permit a range of residential densities and housing types throughout the City, rather than concentrating higher densities in limited areas, and provide for all residential life styles ranging from equestrian and estate lots to multiple family development and mobilehome parks.

b. Direct the location of senior and multiple family housing to areas accessible to public transportation, supportive commercial uses, and community facilities.

c. Maintain 7,200 square feet as the minimum lot size standard for new single family residential subdivisions, except that existing residential lots of record which are less than this size may be developed pursuant to the requirements of the applicable land use designation and zone district.

d. Consider underlying topography, existing parcelization, existing land uses, infrastructure availability and relationship between uses in designating residential land uses.

Program L3.1.1
Adopt and maintain the land use map to provide for a variety of residential uses in accordance with these policies and with the locational criteria in the residential land use designations as outlined in Policy L 1.1.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1999 and ongoing.

Policy L 3.2
Ensure that residential development provides an attractive living environment and creates long-term value for residents as well as the community, through the following measures:

a. Multiple family development should create a safe, convenient, attractive environment with adequate open space and on-site amenities.

b. Single family subdivisions should integrate with existing development and community facilities.
c. During development review, building intensity as well as density should be considered; building mass and coverage should be proportional to the size of parcel being developed, and should be in scale with the neighborhood.
d. Mobilehome parks and subdivisions should provide sufficient open space and recreational amenities to adequately serve their residents and assure consistency with surrounding development.
e. Residential development should be designed to be sensitive to the mountain environment; building orientation and design should consider and complement the natural characteristics of the site.
f. The primary use of residentially-designated property shall be residential uses; such property shall not be primarily used for storage, parking, accessory structures, or other non-residential uses.
g. Residential development on substandard lots should maintain adequate setbacks to ensure conformity and compatibility with adjacent development.
h. Density transfers may be approved for larger residential projects, where appropriate to provide additional open space, green belts, play areas or other amenities, preserve natural or cultural resources or mitigate natural hazards.

Program L 3.2.1
Revise the Development Code and other applicable ordinances to incorporate these residential design policies.
Responsible Agency: Planning Division to draft revisions, Planning Commission and City Council to adopt.
Schedule: 2001

Program L 3.2.2
Through the development review and approval process, assure compliance of new residential development projects with these policies and applicable codes and ordinances.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing.

Policy L 3.3
Maintain the integrity, safety and attractiveness of residential neighborhoods by pursuing compliance with applicable codes and ordinances to ensure maintenance of residential areas.

Program L3.3.1
Provide code enforcement to ensure compliance with land use, property maintenance and building code requirements and to preserve the existing housing stock, enhance property values and improve residential neighborhoods.
Responsible Agency: Code Enforcement
Schedule: Ongoing.

Policy L 3.4
Provide for visitor lodging in residential areas with certain restrictions which are designed to preserve residential character, through the following measures:

a. Within residential designations primarily allowing single family dwelling units, permit establishment of bed and breakfast uses with five or fewer guest rooms only with approval of a conditional use permit.
b. Within multiple family residential districts, allow commercial lodging facilities only with a conditional use permit provided that the project density does not exceed 12 guest and dwelling units per acre.
c. Within all residential designations, allow rental of dwelling units for short-term vacation use, provided that such rentals are operated pursuant to City ordinances and regulations.

Program L 3.4.1
Review any proposed commercial lodging facility or vacation rental proposal with respect to this policy to ensure conformance with the General Plan and applicable codes and ordinances.
Responsible Agency: Planning Division, reviewing authority
Schedule: Ongoing

Program L 3.4.1
Review ordinances regulating bed and breakfast establishments and vacation rental operations to evaluate their conformance with General Plan policies protecting residential neighborhoods, and revise these ordinances if appropriate.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 2001

Policy L 3.5
Provide for keeping of a reasonable number of domestic animals in residential districts and for the keeping of horses within designated areas of the City, and enforce animal-keeping provisions to ensure that residential neighborhoods are protected from excessive odors or other nuisances from animals.

Program L 3.5.1
In the Development Code, establish provisions for keeping of pets in residential zones and for keeping of horses within the Equestrian Estates and Rural Residential designations, and adopt regulations for non-conforming animal uses to transition these uses out of inappropriate areas.
Responsible Agency: Planning Division and Code Enforcement to draft regulations; Planning Commission and City Council to adopt.
Schedule: 2001

Policy L 3.6
Provide for accessory uses in residential neighborhoods as permitted by State law and to meet the needs of City residents, which may include but are not limited to family day care facilities, dependent housing units and home occupations, while ensuring that such accessory uses do not adversely affect the surrounding neighborhood.

Program L 3.6.1
In the Development Code, adopt appropriate standards for accessory uses in residential areas.
Responsible Agency: Planning Division to draft regulations, Planning Commission and City Council to adopt.
Schedule: 2001

Policy L 3.7
To support the provision of affordable housing in the City, provide incentives for development of these units through measures which may include but are not limited to the following:

a. Provide for fast-tracking of application review, plan check and inspection processes;
b. Consider approving a density bonus of no greater than 50 percent over the base permitted density for projects providing affordable units to low-to-moderate income families and households, and consider approving a density bonus of no greater than 100 percent for projects providing affordable units to senior citizens, based on the merits and amenities provided within each project, on a case-by-case basis.

Responsible Agency: Planning Division to draft revisions, Planning Commission and City Council to adopt.
Schedule: 2001

GOAL L 4
Provide sufficient commercially-designated land to accommodate the City's long-term needs for tourist and recreational facilities, to support the City's role as a market center for the Big Bear Valley and to provide services to City residents.

Policy L 4.1
Adopt the following policies for designating commercial uses within the City:

a. Commercial development should be located in areas free from major topographic variation, except that the Commercial-Recreation designation may be appropriate in hillside areas for winter sports uses.
b. Commercial uses should be located so as to minimize interface conflicts with existing and planned residential neighborhoods. Primary access to a commercial site should not be provided through a residential neighborhood.
c. Commercial sites should have visibility from a public street and should have adequate access and infrastructure reasonably available to support the intensity of the use.

Program L 4.1.1
Adopt and maintain the land use map to provide for a variety of commercial uses in accordance with these policies and with the locational criteria in the commercial land use designations as outlined in Policy L 1.1.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1999 and ongoing.

Policy L 4.2
Ensure that commercial development provides an attractive environment for business, lodging, entertainment, shopping and working, and creates long-term value for the community, through the following measures:

a. Commercial development should create a safe, convenient, attractive environment with adequate landscaping, parking, lighting, setbacks, height restrictions, architectural design, and pedestrian access linking to off-site walkways and transit stops, where appropriate.
b. Commercial development should be designed to be internally cohesive and to integrate with adjacent commercial development, which may include but not be limited to consolidation of contiguous lots, use of shared driveways, use of reciprocal parking and access, provision of convenient pedestrian pathways between businesses, use of complementary site plans, building designs and landscape palettes, and other site features as appropriate.
c. Commercial development should be designed to minimize impacts on less intensive uses in the vicinity, which may include but not be limited to provision of adequate building and parking setbacks, use of landscaped areas and plant materials, location of trash and loading areas, and techniques to mitigate light, glare, noise, odors or other nuisances.
d. Commercial development should be designed to complement and enhance the mountain environment through use of architectural styles and materials, retention of mature trees and installation of new landscaping, signs, and other design features as deemed appropriate by the reviewing authority.

Program L 4.2.1
Revise the Development Code and other applicable ordinances to incorporate these commercial design policies.
Responsible Agency: Planning Division to draft revisions, Planning Commission and City Council to adopt.
Schedule: 2001

Program L 4.2.2
Through the development review and approval process, assure compliance of new commercial development projects with these policies and applicable codes and ordinances.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing.

Policy L 4.3
Adopt regulations for location, design and operation of commercial uses which, by the intensity of the proposed use or potential secondary land use effects, may have special requirements, including but not limited to the following uses:

a. Uses proposed to be operated 24 hours per day;
b. Adult-oriented uses;
c. Automobile service stations and repair facilities;
d. Convenience stores;
e. Nightclubs, dance halls, or other establishments using amplified sound.

Program L 4.2.1
Revise the Development Code and other applicable ordinances to incorporate appropriate regulations for these commercial uses.
Responsible Agency: Planning Division to draft revisions, Planning Commission and City Council to adopt.
Schedule: 2001

GOAL L 5
Provide opportunities for industrial activities needed to support the local economy and recognize existing industrial uses in the City, while ensuring that impacts from industrial uses do not detract from the city's character as a mountain resort through adverse visual, traffic, noise, dust or other impacts.

Policy L 5.1
Provide a sufficient amount of industrially-designated land to accommodate activities supporting local needs based upon the following criteria:

a. Industrial development should be located in areas free from environmental and topographic constraints and served by appropriate infrastructure.
b. Industrial development should be located so as to minimize interface conflicts with existing and planned residential neighborhoods and less intensive commercial districts. Primary access to an industrial site should not be provided through a residential neighborhood.
c. Encroachment of incompatible uses into or adjacent to designated industrial land should be discouraged when it can be shown that such uses may ultimately impede development or expansion of industrial uses, and that such uses may be established elsewhere in the planning area.

Program L 5.1.1
Adopt and maintain the land use map to provide for a variety of industrial uses in accordance with these policies and with the locational criteria in the industrial land use designation as outlined in Policy L 1.1.

Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1999 and ongoing.

Policy L 5.2
Work with the San Bernardino County Department of Planning and other agencies as needed to cooperate on location of sufficient industrially-designated land to meet the long-term needs of the Valley, and assist with providing incentives, if appropriate, to encourage new industrial development which serves the entire Valley.

Program L 5.2.1
Meet with County officials to discuss industrial development in the Valley, and take further action as appropriate.
Responsible Agency: Planning Division, City Manager, City Council
Schedule: Ongoing

Policy L 5.3
Ensure that industrial development provides an attractive environment for business and working and creates long-term value for the community, through the following measures:

a. Industrial development should create a safe, convenient, attractive environment with adequate landscaping, parking, lighting and pedestrian access linking to off-site walkways and transit stops, where appropriate.
b. Industrial development should be designed to be internally cohesive and to integrate with adjacent industrial development, which may include but not be limited to use of shared driveways, use of reciprocal parking and access, provision of convenient pedestrian pathways

between businesses, use of complementary site plans, building designs and landscape palettes, and other site features as appropriate.

c. Industrial development should be designed to minimize impacts on less intensive uses in the vicinity, which may include but not be limited to provision of adequate building and parking setbacks, use of landscaped areas and plant materials, location of trash and loading areas, techniques to mitigate light, glare, noise, odors or other nuisances, and requirement for a conditional use permit for certain uses adjacent to less intensive uses..

d. Industrial development should be designed to complement and enhance the mountain environment through use of architectural features, materials, retention of mature trees and installation of new landscaping, use of signs, screening of outdoor storage, loading and refuse disposal areas, building height and bulk, impervious surface area, and other design features as deemed appropriate by the reviewing authority.

Program L 5.2.1
Revise the Development Code and other applicable ordinances to incorporate these industrial design policies.

Responsible Agency: Planning Division to draft revisions, Planning Commission and City Council to adopt.
Schedule: 2001

Program L 5.2.2
Through the development review and approval process, assure compliance of new industrial development projects with these policies and applicable codes and ordinances.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing.

GOAL L 6
Plan for and reserve land to accommodate uses needed for public benefit, including open space, recreation, public improvements, schools and community facilities.

Policy L 6.1
Ensure that adequate land is available for uses serving or providing benefit to the general public through the Public and Open Space designations on the land use map, in accordance with the following criteria:

a. Designate open space areas where appropriate for resource conservation, passive and/or active open space, recreation, mitigation of natural hazards and/or aesthetic benefit to the community.

b. Consider acceptance of natural open space dedications to the City if such dedication is consistent with City plans for an open space/greenbelt network or other needed public use. Lands proposed for dedication which lack potential for linkage with an overall system or

which lack valuable natural or cultural resources may not be suitable for acceptance by the City.

c. Allow the location of public and quasi-public uses within other land use designations than Public, as allowed by the underlying zoning and provided that such locations are consistent with applicable General Plan policies and meet a general community need.

Program L 6.1.1
Adopt and maintain the land use map to provide for a variety of public and open space uses in accordance with these policies and with the locational criteria in the Public and Open Space designations as outlined in Policy L 1.1.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1999 and ongoing.

Program L 6.1.2
Evaluate development proposals with respect to any impacts on open space lands and/or public facilities, and ensure that public and open space uses are not adversely affected by new development.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing.

Policy L 6.2
Ensure that any City-owned facility and/or open space area is designed, constructed, maintained and operated so as to minimize adverse effects on surrounding properties, and that projects of the City or its subsidiary districts adhere to the same development standards as would privately-owned projects of a similar use and intensity.

Program L 6.2.1
Evaluate city development projects pursuant to applicable General Plan policies, codes and ordinances and ensure compliance with these standards throughout construction and operation of these facilities.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing.

CIRCULATION ELEMENT

CIRCULATION ELEMENT

PURPOSE

The City's circulation system supports growth and vitality in the community. From pedestrian walkways to state highways and local air service, the transportation network connects neighborhoods within the City to adjacent communities and to the region. If the network fails and this linkage is interrupted, quality of life in the community may be diminished.

The Circulation Element plans for the continued development of an efficient, cost-effective and comprehensive transportation system which is consistent with regional plans, local needs, and the City's character. The Circulation Element both complements and supports the Land Use Element, insofar as a cohesive land use pattern cannot be achieved without adequate circulation. Planning for the ultimate alignment, width and capacity of the City's roadways, as well as coordination with Caltrans regarding the three state highways connecting the City to the larger region, will also enhance the City's economic growth.

BACKGROUND

The California Government Code describes conditions and data which must be researched, analyzed and included in a Circulation Element. Government Code Section 65302(b) states that the General Plan shall include the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities. The City is also required to coordinate the Circulation Element provisions with the regional transportation plans, as set forth in Government Code Sections 65103(f) and 65080. Regional plans affecting the City of Big Bear Lake include those of the California Department of Transportation (Caltrans), the San Bernardino Associated Governments (SANBAG), the Southern California Association of Governments (SCAG) and the transit agency (MARTA). In addition, federal and state transportation planning must be coordinated with local planning, pursuant to Section 134, Title 23 of the U. S. Code, and California Government Code Section 65080(a), respectively.

The Circulation Element has been developed in conformance with State law and with the other portions of the General Plan, including the Land Use, Environmental Resources, Noise, Public Services and Facilities Elements. The proposed road network is based upon projected development permitted by the Land Use element, because the types and intensities of land uses in the City will influence the types and volumes of traffic traveling the City's roads now and in the future. The public transit and trip reduction policies are in conformance with State, County and regional programs. Policies requiring coordination of the circulation system with other public infrastructure conform with the Public Services and Facilities Element. Projected noise levels as contained in the Noise Element were based upon traffic volumes estimated for the Circulation Element. The Circulation Element also complements the City's air quality goals by planning for a smooth-flowing transportation system which reduces vehicle emissions. Additionally, as noted in the economic

development section of the Land Use Element, the viability of Big Bear Lake as a resort destination will be improved with better access to its six-county market area, and implementation of the Circulation Element will assist the City in reaching its economic development goals.

The Circulation Element addresses the City's plans to upgrade and expand its pedestrian walkways, surface streets, arterial roads, state highways and public transportation. In addition, it addresses the need for coordination with the Big Bear Airport District. Although the airport is located outside of the City limits, it is a key component of the Big Bear Valley's circulation system. Pedestrian access and bikeways are also included in the Circulation Element, as well as being addressed in the Open Space, Parks and Recreation Element.

The Circulation Element has been developed based upon an analysis of existing conditions in the City, future development within City limits, and anticipated growth in regional transportation. A variety of data were used to quantify and characterize existing traffic volumes and conditions along roadway links and at major intersections. The traffic model used is an enhanced version of the San Bernardino Mountain Model which was developed for SANBAG specifically for the Mountain Region, and reflects 1996-97 conditions. A traffic distribution process was used to analyze circulation and the effects of development on traffic. Based on this analysis, recommendations were formulated for the roadway designations shown on the Circulation Map, and for goals, policies and programs included in the Circulation Element.

SOME FUNDAMENTAL CONCEPTS FOR CIRCULATION PLANNING

Access and Mobility

A city's roadway system consists of a range of transportation facilities which serve two basic functions: mobility and land access. Mobility means providing the ability for motorists to travel between points of activity, and land access means providing for entrance and egress at the final destination. A circulation network is composed of facilities that emphasize the mobility or access functions to different degrees. For example, freeways or expressways provide limited access but good mobility between access points, while local neighborhood streets provide access to every residence but a low degree of mobility due to slow speeds and frequent stops. The transportation facilities found within the City, along with a description of each type of facility, is provided below.

- ***Arterial.*** This type of roadway provides a high degree of mobility as a major traffic carrier with access to collectors and some local streets. Arterials are typically the widest streets in terms of right of way and pavement width, and they generally have the highest speed limits. Arterials may be further classified as primary or secondary, based upon their width and capacity;

- ***Collector.*** This type of roadway connects local streets with arterials and also provides access to adjacent land uses, thus balancing mobility with access. While a collector street is not as wide as the arterial, it is often wider than local streets in terms of right of way and lane width;

- ***Local.*** This type of roadway is intended to provide access to adjacent land uses exclusively, and is not designed or intended to carry through-traffic or allow for high speeds.

Roadway systems are designed with different types of streets to balance mobility and access needs in an efficient manner. The different functions of various roadways require specific methods of analysis and design, because each street type must meet different traffic capacity and access requirements. While it might be considered desirable to provide both access and mobility on all roadways, most residents would not like their local neighborhood streets to be designed at arterial street standards for width and number of lanes. Conversely, problems occur when a street designed to provide mobility is expected to provide for land access as well. Land access typically requires driveways to move vehicles off the street and onto the property in question. When too many access points are provided on a street intended for mobility, friction and conflicts occur between vehicles needing access and vehicles using the facility for mobility. Therefore, the designation of streets for different uses has both a functional and economic value to the community, and must be considered in developing the City's circulation plan.

Because the City of Big Bear Lake is an alpine community where people value the natural environment, the trade-offs between mobility, traffic congestion and the effect of wider roadways on the community character must also be carefully weighed in developing circulation polices.

Capacity and Connectivity

In evaluating and planning for a functional circulation system, both capacity and connectivity should be considered. Capacity refers to the ability of the street system, including roadways and intersections, to adequately serve the demand placed on it. It is a measure of how well the mobility needs of the City are provided for. Connectivity is defined as a measure of how well various parts of the City are joined together, and how easy it is to move between different parts of the City. Connectivity is also related to how well land access is provided within the City.

The capacity of a roadway is affected by a number of factors, including the street's width, the number of cross streets, the amount of green time given to the street at each signal, the presence or absence of on-street parking, the number of turn lanes at each intersection and the number of driveways. Intersection capacity depends on the lane configuration, meaning the number of through lanes and turn lanes, their width and alignment, and the signal timing (e.g., the amount of green time for each movement). Daily capacity analysis is very general in nature and is typically used to identify roadways which are nearing or exceeding their capacity and which should be the subject of further peak hour analysis. Peak hour traffic operations analysis is described by a roadway or intersection's level of service.

The level of service (LOS) designation of a roadway or an intersection indicates whether the capacity is adequate to handle the volume of traffic using the facility. Levels of service provided by street segments and intersections are dependent upon traffic volumes, number of lanes, whether the

roadway is divided, the number of access points (driveways or cross streets) along the roadway, and the lane configuration at intersections. Level of service is a term used to describe prevailing conditions and their effect on traffic. It is a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, and driving comfort and convenience. Levels of service are represented alphabetically, with Level A representing the least impacted roadway, and Level E representing the "maximum capacity" or forced flow roadway. Level of service F represents long queues of traffic and unstable flows.

The General Plan Traffic Impact Study included assumptions for roadway capacities for both summer and winter conditions. These capacities, by roadway type, are listed in Table C-1.

Table C-1
Daily Roadway Segment Capacities

Roadway Type	Travel Lanes	Summer Capacity	Winter Capacity*
2 Lane Undivided	2U	13,000	11,700
2 Lane Divided	2D	18,000	16,200
3 Lane Divided	3D	21,000	18,900
4 Lane Undivided	4U	25,000	22,500
4 Lane Divided	4D	37,500	33,800

* Winter conditions result in a 10% reduction in daily capacity.

Peak Hour and Average Daily Traffic Volumes

Average Daily Traffic (ADT) is a measurement of the average number of vehicles that travel a segment of roadway during a 24 hour period. The ADT is a useful benchmark for determining roadway capacities, but peak hour information, which is the highest volume of traffic to pass over a road in a one hour period, is a more meaningful and accurate basis for evaluating traffic conditions along roadways.

Intersection Capacity

The level of service along a roadway is typically dependent on the quality of traffic flow at the intersections along that roadway. Usually, bottlenecks and delays start at intersections, not the roadway segments in between. Level of service at intersections is expressed in terms of delay

time for the various intersection approaches, and varies for signalized and unsignalized intersections. Generally, if a vehicle is stopped for 60 seconds or more, the intersection is operating at LOS "F", while delays from 0 to 5 seconds are considered to be LOS "A".

Congestion Management Program

The Congestion Management Program (CMP) was enacted by the State legislature in 1989 to improve traffic congestion in California's urban areas. The program became effective with the passage of Proposition 111 in 1990, which increased the State gas tax over a five year period. The funds generated by Proposition 111 are available to cities and counties for regional road improvements, provided that these agencies are in compliance with CMP requirements. If a city does not comply with the CMP, it could lose funding under Proposition 111. Like other California cities, Big Bear Lake must develop and implement local programs to comply with the State's Congestion Management Program.

Under the legislation, regional agencies are designated within each county to prepare and administer the CMP. In San Bernardino County, the Congestion Management Agency is the San Bernardino Associated Governments (SANBAG). SANBAG's congestion management plan for San Bernardino County must be consistent with regional plans prepared by the Southern California Associated Governments (SCAG). The City's responsibilities include the following:

- Assisting in monitoring the roadways designated within the CMP system;
- Adopting and implementing a trip reduction and travel demand ordinance;
- Analyzing the impacts of local land use decisions on the regional transportation system; and
- Preparing annual deficiency plans for portions of the CMP system where level of service standards are not maintained.

SANBAG will review compliance with the CMP by cities under its jurisdiction. For any city out of compliance, SANBAG may give notice and establish a correction period, after which they may report the city to the State Controller, who may then withhold a portion of its state gas tax funds.

SANBAG adopted the County's Congestion Management Plan in 1992. Within the City of Big Bear Lake planning area and vicinity, the roadways included in the Congestion Management Plan are SR-18, SR-38 and SR-330.

Preparation of a new General Plan constitutes a project which must be evaluated for CMP compliance. If the new General Plan is found to further impact traffic conditions on CMP roadways, mitigation may be required. In accordance with CMP requirements, the City retained a traffic consultant to prepare a traffic impact analysis.[1] Based on SANBAG's requirements, this analysis included evaluation of impacts on state highways more than five miles from the City of

[1]RKJK & Associates, *City of Big Bear Lake General Plan Update Traffic Impact Study,* May, 1998, and *Addendum,* April, 1999.

Big Bear Lake, and specifically included the intersection of SR-18 and SR-330 in Running Springs. In addition, a level of service analysis was conducted on all existing segments and intersections on the CMP network potentially impacted by the General Plan. The San Bernardino CMP allows a jurisdiction to define acceptable levels of service up to LOS "E".

For deficiencies on the CMP roadways, the CMP requires the following further analysis by the City:

- Evaluation of mitigation measures needed to achieve acceptable levels of service;
- Calculation of the project share of new traffic on impacted CMP roadways during peak hours; and
- Estimation of the cost required to implement the needed improvements.

The General Plan traffic analysis addressed these issues, and its conclusions are presented in the above-referenced report.

Traffic Modeling Methodology

The traffic modeling effort for this Circulation Element was based on the San Bernardino Mountain Traffic Model developed for the San Bernardino Association of Governments (SANBAG), and refined by the traffic consultant to produce the Big Bear Lake Traffic Model. The modeling effort also included information from Caltrans, independent traffic count data, the 1994 Highway Capacity Manual and the County of San Bernardino Congestion Management Program. The model referenced land use designations described and assigned in the Land Use Element and Land Use Map, and considered traffic movements into and out of the planning area along the state highways. It was found that traffic problems are greater in the winter than the summer, although summer traffic volumes are generally higher, due to the reduced capacity caused by snowy, wet or icy roads. The more pronounced peaking of traffic in the late afternoon related to wintertime activities may also contribute to traffic congestion on winter weekend afternoons. Because winter weekend traffic conditions were the most problematic, the traffic analysis was based on typical winter weekend conditions at approximately 5:00 p.m. on Sundays.

The Big Bear Lake Traffic Model utilizes a series of 92 traffic analysis zones (TAZ's) to represent the City of Big Bear Lake. These TAZ's are a further refinement of the seven TAZ's assigned to the City in the San Bernardino Mountain Traffic Model. The increased number of TAZ's allows the model to assign and distribute trips within the City based on land uses within each zone. A complete description of the TAZ's, and the land uses assigned each zone can be found in the Traffic Impact Analysis Report. The model also assigns both regional (on and off the hill) and intra-mountain trips from SANBAG's mountain region model. The Big Bear Lake traffic model projects traffic patterns based on the Land Use Map, and has led to the development of design requirements needed to maintain acceptable traffic flow.

HISTORIC AND EXISTING TRAFFIC CONDITIONS WITHIN THE PLANNING AREA

Regional Access

The City, although somewhat isolated from the inland valleys and high desert by topography, is part of a complex regional transportation system linking the City to the greater southern California metropolitan region. Regional access to the City is provided directly by SR-18 and SR-38. Indirect access is provided by SR-30 and I-215 via SR-330 and SR-38. Regional roadway access to the Big Bear Valley is limited to three approaches: SR-18 from the west, serving traffic from San Bernardino and Lake Arrowhead; SR-18 (E) from the north and east, serving traffic from the Lucerne and Victor Valleys; and SR-38 from the south and east, serving traffic from Redlands. SR-18 and SR-38 serve the Los Angeles Basin, whereas SR-18(E) serves the high desert area to the north. All three state facilities are two-lane mountain roads with passing lanes and turnouts at strategic locations.

The City's efforts to achieve efficient transportation must be coordinated with a number of other plans and programs governed by other agencies. Caltrans has jurisdiction over Big Bear Boulevard (State Route 18), and is a source of funding for improvements on this roadway. San Bernardino Associated Governments (SANBAG) is the County's transportation authority; it is responsible for regional transportation planning, and is also a source of funding for roadway and alternative transportation projects. The County of San Bernardino has responsibility for maintenance of roadways other than the State Routes outside the City limits, and federal agencies have jurisdiction over the public lands and roadways adjacent to the City within U. S. Forest Service property. The traffic modeling effort for this General Plan was designed to ensure regional consistency in transportation planning. In order to continue to have a viable transportation system, the City will need to continue to actively participate in regional transportation planning efforts.

Existing Roadway System

The City of Big Bear Lake is located in a geographically constrained mountain valley. Circulation opportunities are further hindered by Big Bear Lake, which lies directly north of the City. State Route 18 (SR-18) passes directly through the community, serving both local and regional traffic. Most of the SR-18 alignment is along Big Bear Boulevard, with portions located along Paine Road and Lakeview Avenue. Existing roadways in the City are generally two lane undivided facilities. The exceptions to this general rule are segments of Big Bear Boulevard and Moonridge Road. Trees line most roadways in the study area, imparting a sense of the alpine forest environment. The following paragraphs describe the major roadways within the City:

- ***Big Bear Boulevard*** is the major through route in the City. It is a two lane undivided roadway between the west City limit and Paine Road, where it temporarily ends. Big Bear Boulevard resumes at the intersection of Pine Knot Avenue as a four lane divided roadway with a curb to curb width of 64 feet. The four lane divided cross-section is maintained on Big Bear Boulevard east through the intersection of Starvation Flats Road/Stanfield Cutoff,

where the cross-section transitions to a two lane undivided configuration. Typical winter Sunday daily traffic volumes range from a low of approximately 10,000 vehicles per day at the western end of the City to a maximum of approximately 22,800 vehicles per day between Summit Boulevard and Moonridge Road. All of the traffic signals in the City are located along Big Bear Boulevard; these are located at Pine Knot Avenue, Knickerbocker Road, Georgia Street, Summit Boulevard, Moonridge Drive/Garstin Drive, Fox Farm Road, Lakeview Center/Interlaken Center, and Starvation Flats Road/Stanfield Cutoff.

- ***Moonridge Road/Clubview Drive*** provides the primary access to Bear Mountain from Big Bear Boulevard. Moonridge Road varies between a four lane divided and four lane undivided cross-section. The four lane divided cross-section is initially provided in the vicinity of Big Bear Boulevard. Moonridge Road then transitions to a four lane undivided cross-section south of the intersection with Moonridge Way. The cross-section transitions back to a four lane divided configuration from south of Evergreen Drive to Sunset Drive, a "Y" intersection at Clubview Drive. From the "Y" intersection, Clubview Drive continues to the Bear Mountain ski resort, and consists of a two lane undivided cross-section. Traffic volumes on Moonridge Road range from approximately 5,600 vehicles per day between Big Bear Boulevard and Clubview Drive to 4,700 vehicles per day on Clubview Drive.

- ***Moonridge Way*** is a short four lane undivided roadway which connects Moonridge Road with Big Bear Boulevard. This roadway serves traffic traveling northbound on Moonridge Drive which is ultimately traveling towards destinations to the east.

- ***Summit Boulevard*** is a wide two lane undivided roadway which provides access to the Snow Summit ski area. The width of Summit Boulevard is sufficient to allow for right angle parking on the east side of the roadway, which is lined with residential units.

- ***Village Drive*** provides access from Big Bear Boulevard (SR-18) to the Village. Westbound traffic from Village Drive is allowed uncontrolled access to Big Bear Boulevard at the intersection with Big Bear Boulevard and Paine Road. The estimated winter Sunday daily traffic volume in Village Drive east of Big Bear Boulevard is 5,700 vehicles per day.

- ***Pine Knot Avenue*** is a two lane undivided roadway which provides access to the Village from Big Bear Boulevard (SR-18). The intersection of Pine Knot Avenue and Big Bear Boulevard/Lakeview Drive is controlled by a traffic signal. The estimated winter Sunday daily traffic volume on Pine Knot Avenue south of Big Bear Boulevard is 9,300 vehicles per day.

- ***Paine Road*** is a short segment of roadway which is part of SR-18 between Big Bear Boulevard and Lakeview Drive. Paine Road is a two lane undivided roadway which is estimated to carry 18,100 vehicles per day in winter Sunday daily traffic volume north of Big Bear Boulevard. The intersection of Paine Road at Big Bear Boulevard is a key congestion point for traffic which is traveling westbound on SR-18. The southbound Paine

Road to westbound Big Bear Boulevard movement is controlled by a stop sign, and a substantial queue of traffic develops as vehicles wait for the opportunity to perform this right turn.

- ***Stanfield Cutoff*** connects Big Bear Boulevard to North Shore drive just east of Big Bear Lake. The estimated typical winter Sunday daily traffic volume on Stanfield Cutoff is 4,200 vehicles per day.

- ***Division Road*** is located at the eastern end of the City. This two lane undivided roadway carries an estimated daily traffic volume of 3,500 vehicles per day under typical winter Sunday conditions.

- ***Garstin Drive*** is a two lane undivided roadway, with the exception of its intersection with Big Bear Boulevard and Moonridge Drive. Garstin Drive provides access to the industrial are of the City. The typical winter Sunday daily traffic volume on Garstin Drive is less than 1,000 vehicles per day.

The remaining roadways within the City are all two lane undivided facilities which carry less than 3,000 vehicles per day, with the exception of some collector streets which may carry slightly more than 3,000 vehicles per day.

Existing Traffic Volumes and Levels of Service

Existing traffic volume data were compiled from a variety of sources, and are summarized on Table C-2. The highest estimated 1998 winter Sunday daily traffic volumes occurred on SR-18, with estimated traffic volumes ranging from 10,000 vehicles per day up to 22,800 vehicles per day between the Snow Summit and Bear Mountain ski areas. The estimated daily traffic volumes on all other study area roadways were less than 10,000 vehicles per day, with the highest estimated volumes on Pine Knot Avenue, Moonridge Drive and Village Drive.

Volume/capacity ratios developed for winter Sunday conditions, and an indicator of traffic conditions, are also listed in Table C-2. SR-18, which includes Big Bear Boulevard and portions of Paine Road and Lakeview Drive, is near or over capacity throughout its two lane undivided cross-section during peak winter conditions. Those sections of Big Bear Boulevard which have been widened to a four lane divided cross-section operate at acceptable levels of service on a daily basis for existing conditions. Eight segments of SR-18 currently operate near or over capacity for existing daily conditions. All other roadways in the City carry acceptable existing daily traffic volumes in relationship to their existing cross-sections.

Table C-2
Existing Winter Sunday Daily Traffic
Volume/Capacity Analysis

Segment/Limits	Volume	Capacity	V/C	Condition
SR-18/SR-38 to w/o SR-38	11,800	11,700	1.01	O.C.
SR-18/Sr-38 to Cienega Rd.	10,000	11,700	0.85	A.
Big Bear Blvd./Cienega to Edgemoor	12,500	11,700	1.07	O.C.
Big Bear Blvd./Edgemoor to Lakeview	18,600	11,700	1.59	O.C.
Big Bear Blvd./Lakeview to Village	22,200	11,700	1.90	O.C.
Big Bear Blvd./Village to Lakeview	18,100	11,700	1.55	O.C.
Lakeview Dr./Big Bear to Pine Knot	18,000	11,700	1.54	O.C.
Village Dr./Big Bear to Pine Knot	5,700	11,700	0.49	A.
Pine Knot Ave./Big Bear to Village	9,300	11,700	0.79	A.
Big Bear Blvd./Pine Knot to Summit	20,100	33,800	0.59	A.
Summit Blvd./Brownie to Evergreen	900	11,700	0.08	A.
Big Bear Blvd./Summit to Moonridge	22,800	33,800	0.67	A.
Moonridge Rd./Big Bear to Sunset	5,600	22,500	0.25	A.
Clubview Drive/Moonridge to s/o Moonridge	4,700	11,700	0.40	A.
Big Bear Blvd./Moonridge to Stanfield	18,800	33,800	0.56	A.
Fox Farm Rd./Big Bear to Starvation Flats	800	11,700	0.07	A.
Fox Farm Rd./Starvation Flats to Division	400	11,700	0.03	A.
Starvation Flats/Sr-18 to Fox Farm	1,000	11,700	0.09	A.
SR-18/Stanfield Cutoff to Division	15,400	11,700	1.32	O.C.
SR-18/Division to Greenway	14,300	11,700	1.22	O.C.
A.=Acceptable O.C.= Over Capacity				

Peak hour traffic operations analysis was also conducted at eight intersections in the study area. Four of these intersections are within the City along SR-18. The remaining 4 locations are located outside the City but were required to be analyzed in accordance with CMP requirements. They are also key locations along regional access routes to the City. Table C-3 summarizes the results of this analysis. At those intersections located west of the City, overall level of service is

acceptable, but the minor street movements trying to cross or merge with the main street flows are subject to extensive delays. The intersection of Big Bear Boulevard, Paine Road and Village Drive experiences LOS "F" under existing peak winter conditions. The signalized intersection of Pine Knot Avenue at Big Bear Boulevard also experiences LOS "F" conditions overall, as westbound traffic on SR-18 merges from two travel lanes into a single westbound through lane at this intersection. All other intersections analyzed currently experience acceptable (LOS "D" or better) traffic operations.

Table C-3
Existing Winter Sunday PM Peak Hour Intersection Analysis Summary

Intersection	Traffic Control	Level of Service (PM)
SR-18 (NS) at: • SR 330 (EW)	Cross street stop	B
SR-38 (NS) at: • SR-18 (EW)	Cross street stop	A
Paine (NS) at: • Big Bear Boulevard	Cross street stop	F
Pine Knot Ave.(NS) at: • Big Bear Blvd. (EW)	Traffic signal	F
Moonridge Rd (NS) at: • Big Bear Blvd. (EW)	Traffic signal	B
Starvation Flats Rd. (NS) at: • Big Bear Blvd. (EW)	Traffic signal	C
Greenway Dr. (NS) at: • Big Bear Blvd. (EW) • North Shore Dr. (EW)	 Traffic signal Cross street stop	 B A

Estimate of Future Buildout Traffic Conditions

The traffic consultant estimated future buildout traffic conditions based upon the draft land use plan and the modeling methodology described above to determine estimated traffic volumes and recommended roadway designations and improvements within the City. The model considered travel to and from the area by visitors and by residents, and intra-mountain travel. The model was based upon a proposed network of arterial and collector roads. Based upon this analysis, the consultants formulated a series of recommendations for circulation planning within the City's General Plan, which are contained in the following sections of the element.

CIRCULATION PLAN RECOMMENDATIONS

Recommended Level of Service

One of the challenges for the City of Big Bear Lake will be to balance the circulation needs of the community with the residents' desire to maintain the natural mountain environment. As noted in the Introduction, two of the Guiding Principles of the General Plan are "*Providing and encouraging proper stewardship for the lake, forest, natural environment, our heritage and recreational resources*," and "*Constructively addressing the transportation and circulation needs of our Valley*." While many residents want to improve circulation and ease traffic congestion, they are opposed to the construction of four-lane roadways within the community if these wide streets are not required to maintain acceptable levels of service. Therefore, it is critical that the community agrees on acceptable levels of service on its roads and highways.

The Traffic Impact Analysis conducted for the General Plan studied peak traffic conditions, which were identified as winter Sunday afternoons. Based on typical snow conditions during ski season, it may be assumed that between November and March there may be 20 to 25 weekend days during which traffic conditions will be most congested and when the level of service will be lowest. During the rest of the year, roads are less congested and the level of service will generally be better. The community must decide whether the City should plan for and build streets that are wide enough to handle peak traffic conditions without delays, or whether road widths that handle normal traffic conditions acceptably during non-peak times are adequate. Based on the discussions and workshops held during General Plan preparation, the community has expressed a desire to maintain the natural environment and forego widening of streets to four-lane roadways whenever possible. Therefore, it has been determined that the City will not attempt to build a roadway system to meet the peak traffic demands of winter ski weekends, but instead that a service level of E at peak hours on peak weekends will be acceptable. During weekdays and during off-seasons, a level of service D will be acceptable on roadways within the City. These service level goals have been incorporated into the policies of this element.

Recommended Roadway Designations

Three roadway designations are recommended to be included on the General Plan Circulation Map: primary arterials, secondary arterials and collectors. These designations, are described below. Local roads, which provide land access and neighborhood circulation throughout the City, are not included on the Circulation Map; however, policies are included in this element to ensure that these roadways function well to meet local access needs while protecting neighborhoods from through-traffic and high speeds.

Primary Arterials. The typical design section for primary arterials includes a right-of-way of 80 feet, of which 64 feet is paved. Two striping plans are possible for a primary arterial. The curb to curb pavement width of 64 feet can be designated for use by two lanes of traffic in each direction, with a shoulder wide enough to accommodate parked vehicles. Alternately, the pavement can be

striped to accommodate two lanes of through traffic in each direction, with a center left turn lane treatment and no parking on the shoulders; this alternative is the most typically used.

Secondary Arterials. The typical section for secondary arterials includes a 60 foot right-of-way with a pavement width of 44 feet. The secondary arterial can be striped to accommodate one through travel lane in each direction, and either a center turn lane or on-street parking, with sidewalks on each side. This cross-section may be modified based upon adopted specific plans or existing conditions.

Collector Roads. The typical section for a collector includes a sixty (60) foot right-of-way, allowing for one travel lane and on-street parking in each direction. Some designated collectors within existing neighborhoods contain only a forty (40) foot or fifty (50) foot right-of-way, which may be permissible as an existing condition in those areas provided that traffic safety is ensured. Within a forty (40) foot right-of-way, the paved width only allows for a single travel lane in each direction with no on-street parking. If on-street parking is allowed on both sides, there would be enough width for only one travel lane to carry traffic in both directions. Within a fifty (50) foot right-of-way, two travel lanes with on-street parking may be possible. City review of these road widths will be required to ensure that the City's circulation system is not impacted in the long term. In 1997, each of the designated collector roads in the City carried less than 3,000 vehicles per day.

Recommended Roadway Plan

Based on the traffic analysis, the consultants presented a number of recommendations which have been incorporated into the Circulation Element. Some of these recommendations represented a change from the 1984 General Plan Circulation Element. These recommendations are listed below, and the proposed Circulation Plan is shown on Exhibit C-1.

1. The 1984 Circulation Element identified a one-way street system in the vicinity of the Village. Experience with other resort communities indicates a strong resistance to one-way street systems in a resort settings, because they impart a sense of urbanization not typical of the resort setting and are inconvenient during non-peak conditions. Therefore, the Circulation Element does not contain one-way streets, and recommends that their use be carefully evaluated prior to any future proposed use.

2. The current route which SR-18 follows near the Village is the most appropriate location for further roadway widening. The Circulation Plan therefore designates the current SR-18 route near the Village (including Big Bear Boulevard, Paine Road and Lakeview Drive) as primary arterial roadway segments.

3. The only other roadways recommended to be designated as primary arterials are Moonridge Road from Big Bear Boulevard to Clubview Drive and Summit Boulevard from Big Bear Boulevard south to the Snow Summit ski area. These roadways were designated as primary

arterials previously, and the pavement cross-sections already conform to the primary arterial cross-section along most of the designated segments.

4. Most of the secondary arterials previously designated on the General Plan Circulation Map are recommended to be eliminated from this Circulation Element. These roadways serve low density residential uses and the anticipated daily traffic volumes indicate that the collector designation is suitable for these roadways.

5. Pine Knot Avenue between Village Drive and Big Bear Boulevard and Village Drive from Paine Road to Pine Knot Avenue have been retained as secondary arterials in this Circulation Element. These roadways serve to provide access to the Village commercial area.

6. The only roadway which has been upgraded in this Circulation Element compared to the previous General Plan is Stanfield Cutoff. The location of this roadway as a connection between SR-18 and SR-38 near the eastern end of the community results in projected increases in future traffic which will warrant designation as a secondary arterial.

7. All other roadways not listed above which are shown on the Circulation Plan are designated as collector roadways. Collectors are intended to provide access to the arterial roadway system, and they also provide emergency vehicle access to areas within the community.

8. Where a roadway changes designations, the higher designation should be carried through the intersection where the change occurs. A transition of at least 600 feet should be anticipated where this occurs. This recommendation has been incorporated into the element as a policy.

9. In addition to roadway widenings in accordance with the Circulation Plan, several intersection improvements are recommended to provide for acceptable traffic operations in the traffic analysis study area. These are listed below:

   - The intersection of SR-18 (NS) and SR-18/SR-38 (EW) just west of the City will require a traffic signal and additional turn lanes.

   - The intersection of Paine Road (NS) and Big Bear Boulevard/Village Drive (EW) will also require installation of a traffic signal and augmented turning lanes, in addition to the primary arterial cross-section improvements.

   - The intersection of Pine Knot Avenue (NS) and Big Bear Boulevard will require improvements on all four approaches.

   - Additional improvements at the intersection of Moonridge Road/Garstin Drive (NS) and Big Bear Boulevard (SR-18, EW) will be required, including an eastbound right turn lane.

10. Based on their analysis, the consultant concluded that the traffic impacts generated from the proposed Land Use Plan can be mitigated to a level of insignificance, if the recommended Circulation Plan is adopted and the augmented intersection improvements are made. Mitigation will also require the City to require that all future development contribute towards its fair share cost of the needed improvements. It will also be necessary for the City to pursue regional funding to mitigate traffic impacts. These recommendations have been incorporated as policies in this element.

11. Finally, the consultant recommended that the City require any new development projects to prepare opening year traffic studies, and that the City cooperate with Caltrans to ensure that the CMP monitoring requirements at CMP intersections within and near the City are fulfilled. Additionally, the City should continue to cooperate with San Bernardino County and SANBAG in ongoing efforts to evaluate mountain access issues. These recommendations have been incorporated as policies in this element.

Other Roadway Issues

SR 18 Bridge and Highway Realignment Project. Since 1990 the Federal Highway Administration and California Department of Transportation have been studying proposals to replace the Big Bear Lake Bridge located on State Route 18 near the City of Big Bear Lake. The bridge is located near the junction of SR-18 and SR-38, approximately one mile west of the city limit. Five alternatives were originally proposed for this project, but two alternatives were withdrawn after preliminary analysis. The withdrawn alternatives included constructing a new bridge over the existing dam or a new bridge downstream of the dam with realignment of the roadway through the mountainside, and they were eliminated due to potential adverse environmental impacts, engineering concerns and cost factors. The remaining three alternatives which were further evaluated included: 1) a no-build alternative; 2) a new bridge across Big Bear Lake east of the existing bridge; and 3) a new bridge downstream of the 1911 Bear Valley Dam.

The existing bridge is a two-lane roadway constructed in 1924 atop the 1911 Bear Valley Dam. The proposed project would consist of the following components: constructing an approximately 76-foot wide bridge; realigning and widening the approach roadways on SR-18 and SR-38; signalizing the junction of SR-18 and SR-38 at the west end of the new bridge; and constructing retaining walls on SR-18 and SR-38. It has been determined that alternatives 2 and 3 listed above would both have an adverse effect on historical resources in the area, namely the dam keepers's house and the Big Bear Southwest Shore Historic District.

One component of the undertaking, the west approach roadway, is on the Rim of the World Scenic Byway. In February 1990 the USFS designated the 107-mile long Rim of the World Scenic Byway as part of the agency's scenic byway program, created in May 1988. The highway qualified for designation due to its high degree of scenic, natural and historic qualities, which are significant at the state and national level.

Because this project is outside the City limits of Big Bear Lake and located on a State highway, the City has no jurisdiction over the project. However, the bridge reconstruction and roadway realignment will have a major impact on the City because of its location at one of the City's primary gateways. SR-18 is also a major access point from the San Bernardino Valley and serves as an emergency access route. The City has been participating in ongoing meetings and review of the proposed project, and will continue to do so. A policy has been added to this Element underscoring the City's commitment to cooperate in the planning and review of this project.

Circulation Issues Related to Local Streets. One of the major circulation issues facing the City in coming years will be the repair and reconstruction of local streets throughout the community. Many of the existing streets were originally developed as graded dirt or gravel roads. Beginning in the 1950s, local paving contractors were hired to surface these roads with asphalt paving. In many cases the paving materials were applied directly over the gravel road surface, rather than over base material as recommended by street engineering standards. Additionally, in many cases roadways were never aligned vertically and horizontally to provide optimum drainage and visibility, banking of curves and other design considerations meant to enhance driver safety. As a result, many of the City's existing roadways are deteriorating and are in need of resurfacing, pot-hole repair, or reconstruction. Over the past few years the City has undertaken roadway improvement projects on a few well-traveled streets such as Park Avenue and Fox Farm Road. In the future, the City must commit funding each year to repair and maintenance of the local road system. These improvements will not only enhance convenience and safety for City residents, but will assist the City's economic development efforts with respect to tourism by making the City a more inviting place for visitors. The City has prepared and will implement a Master Plan of Streets and Pavement Management Program to address this issue.

Related to the issue of street conditions is that of streets which, due to their narrow width, steep grades and sharp curves, are not deemed to be fully accessible to emergency equipment such as fire trucks, especially in winter conditions. Particularly in some portions of Moonridge, emergency access is constrained by substandard road conditions. This condition may inhibit certain types of development in these areas, particularly some forms of commercial uses, until such time as the streets can be improved or fire safety can be provided for by other means. In many cases, current development patterns preclude widening of streets because of the placement of adjacent structures.

Currently the City handles street maintenance, and contracts with private contractors for snow-plowing services. Snow-plowing requires a substantial portion of the roadway maintenance budget. The City will continue to evaluate methods of containing these costs and providing the most efficient and effective service to residents.

Another issue related to the condition of the local street system is that of connectivity within the community. Due to the lack of east-west street connections, often locally-generated traffic must use Big Bear Boulevard (SR-18) for intra-City trips such as shopping, obtaining services and conveying children to schools and parks. As noted above, the use of a roadway for local access may impact its capacity to provide mobility. If alternate routes for local trips were available Big

Bear Boulevard could function better as a primary arterial for through traffic. In reviewing possibilities for alternate routes north of the Boulevard, a potential alternate route connecting the central portion of the City to the east would include Park Avenue, Swan Drive and Fox Farm Road, which connect Knight Avenue to Division Drive. South of the Boulevard, Pennsylvania Avenue, Jeffries Road, Oak Drive, Eureka Drive, McWhinney Lane, Wren Drive, Brownie Lane and Evergreen Road provide a somewhat circuitous route connecting the Village to Moonridge Road. While many local residents know the streets well enough to find alternate routes, trying to route visitor traffic along these streets would be difficult and may impact residents with homes adjacent to these roads. In reviewing future development plans within the City the issue of connectivity should be considered, and a policy to address this need has been included in the element.

Roadway Design Issues. Roadway design issues include the optional placement of curb, gutter and sidewalks; preservation of clear sight distance for drivers; adequate street width and striping; use of maximum grades for driver safety; and allowance for on-street parking. In general, the City has required curbs, gutters and sidewalks only within new residential subdivisions and commercial developments. These improvements are not required on infill residential development, and have been deferred for some new commercial/industrial development where there are no existing improvements along the adjacent street. Driver sight distance within the City is primarily hindered by the placement of illegal signs adjacent to driveways and intersections, especially along Big Bear Boulevard. Provisions to maintain clear driver visibility should be strictly enforced. Maximum road grade within the City will continue to be 10 percent, unless otherwise approved for short distances by the City Engineer. Finally, the City allows on-street parking on all City streets except for restrictions during winter conditions for snow plowing, or as determined by the City Council on a case by case basis, and this policy will be continued.

Truck Routes. Prior to adoption of this General Plan the City had no designated truck routes. This Element proposes designating State Route 18 as a truck route. This designation will allow the City to ensure that trucks do not use other streets for travel routes, other than to reach a delivery point.

Constraints to Improving the Circulation System

The primary constraint for the City in improving the existing and planned roadway system will be fiscal. It has been estimated that over $20 million will be required to resurface the existing roads within the City. Since most of the City is already developed, financing mechanisms which depend upon new development, such as traffic impact fees, are not a viable option. Issuance of bonds to pay for needed improvements through formation of assessment districts or community facilities districts would require a 2/3 vote of the registered voters residing in the City, which may be difficult to achieve. Therefore, it may be necessary for the City to use general fund moneys in addition to Measure I, State gas tax revenue and state and federal grants to improve its roadway system.

Another constraint to upgrading the circulation system is the pattern of subdivided land and existing structures, which precludes street widening and local connections in many areas unless right of way is purchased from adjacent property owners. Some condemnation and removal of existing structures and buildings would be necessary for certain street widenings or intersection improvements. The cost of right of way acquisition may be prohibitive in all but a few instances where road widening is needed for traffic safety purposes.

ALTERNATIVE MODES OF TRANSPORTATION

Transit Service

Bus transportation is provided by the Mountain Area Regional Transit Authority (MARTA). The agency is a joint powers authority formed by the City of Big Bear Lake and the County of San Bernardino, which are both member agencies.

MARTA provides bus service between Big Bear Lake, Lake Arrowhead, Crestline and San Bernardino. Off-the-mountain (OTM) service is provided Monday through Saturday, with three runs provided on weekdays and two on Saturdays. Destination points for OTM service within the mountain areas include Big Bear Lake, Fawnskin, Running Springs, Lake Arrowhead, Blue Jay, Rim Forest and Crestline. Destination points within San Bernardino include the Metrolink station, the Greyhound bus station, the transit mall, various shopping centers, the County hospital Saint Bernardine's Hospital and the Department of Motor Vehicles.

Within the Big Bear Lake area, fixed-route service is provided daily with stops at Boulder Bay, the Village, Bear Valley hospital, Snow Summit, Bear Mountain, Stater Brothers shopping center, Big Bear City, Sugarloaf and Erwin Lake.

Dial-a-ride service is also available from MARTA on a year-round basis, provided that all trips must be booked the day before.

The City will continue to participate in provision of public transit to serve the residents of Big Bear Lake, and will seek to meet service needs as they may increase or change over time.

Alternative Regional Access Modes

In 1995 SANBAG received a grant from the California Department of Transportation for a "Big Bear Enhanced Ground Access Feasibility Study" to recommend an alternative to link the Big Bear area with the San Bernardino Valley floor. A Technical Advisory Committee consisting of officials from different city, county, and state agencies and the USDA Forest Service, as well as other stakeholders, helped to develop the document. The study, completed in 1997, evaluated several alternatives, all of which would require funding in the millions of dollars for implementation.

From time to time for several years, the idea of an alternative transportation mode connecting the Big Bear Valley with the Inland Empire has been advanced. Each time, the cost of constructing

such a transportation link has rendered the idea infeasible. At some point in time, given technological advances in transportation, it may be feasible to plan for an alternative access route. The City will continue to participate in any such planning efforts.

Pedestrian access

Sidewalks are provided within the City only in a few areas, including portions of Big Bear Boulevard, two streets in the Village, along portions of Moonridge Road and within the larger shopping centers. There are no sidewalks leading from residential areas to nearby schools or parks, although the low traffic volumes on most residential streets allows safe for pedestrian use.

The lack of convenient pedestrian access in many areas represents a challenge for the City in light of its economic goal to be a destination resort community. In many resort areas walking paths are an important part of the tourist amenities provided, especially adjacent to bodies of water. Additionally, the Village's role as a center for dining, entertainment and specialty retail would be enhanced if it were possible to walk to it directly from some of the nearby lodges and hotels.

From Pine Knot Avenue west to the City limits along Highway 18 there are no continuous sidewalks, and pedestrians walk on the shoulder of the roadway. Again due to high traffic volumes and speeds, this situation raises safety concerns.

In many areas it will be difficult to retrofit sidewalks and walkways into the existing development pattern due to the cost of right-of-way acquisition and lack of street connectivity. However, the need for pedestrian access should be considered when the City approves new development plans and upgrades existing streets. Additionally, the development of pleasant and attractive walkways connecting the Village and the lakeshore in the vicinity of Pine Knot Park and adjacent marinas should be considered, along with pedestrian connections from the Village to lodges and hotels within a half mile radius.

Bicycle Routes

The City's 1984 General Plan contained an exhibit showing bicycle routes and bicycle storage facilities. The proposed routes under this plan included Fox Farm Road and Swan Drive, from the eastern City limit to Meadow Park; Starvation Flats Road from Big Bear Boulevard to Fox Farm Road; Moonridge Road and Garstin Drive from Fox Farm Road to Bear Mountain; and a route connecting the Village to Moonridge Road via Pennsylvania Avenue, Oak Avenue , and Brownie Lane. Implementation of this plan has taken the form of signs indicating bicycle routes within portions of the City. No on-street bike lanes have been striped, and not all the routes on the General Plan exhibit have been signed. Additional right-of-way has not been required on the designated roadways to accommodate on-street bike lanes. No off-street bikeways were designated or have been constructed in the City.

In 1994 the San Bernardino Associated Governments (SANBAG) prepared a Regional Bicycle Plan for San Bernardino County. An exhibit included in this document shows proposed bike trails

the Big Bear Lake area. Within the City limits, only one bicycle route was designated, which followed the alignment of State Route 18 with a connecting link along Stanfield Cutoff between SR-18 and SR-38.

There are several constraints to designating an on-street bikeway along SR-18 (Big Bear Boulevard) throughout the City. In many portions of the City the right-of-way for this roadway is only about 40 feet. Within the four-lane segments of Big Bear Boulevard, the striping for travel lanes and a continuous left turn lane leave little room for bicyclists adjacent to the curb. The two-lane portions of the Boulevard contain a narrow pavement width of and no curbs and gutters, forcing bicyclists onto the dirt shoulders when traffic is heavy. Additionally, due to high traffic volumes and speeds, the highway tends to be noisy and dusty for cyclists, in comparison with other potential routes. SANBAG will be revising the County's bike trail plan in the future, and the City will participate in this effort with respect to the Big Bear planning area.

The City's preference for bicycle routes is to designate them off of the State highway. As noted in the Parks, Recreation and Open Space Element, the City will develop a Master Plan for Trails which includes bikeways. The goals for creating an effective, convenient bicycle trail plan will be to connect the trails with focal points such as the Village, the Lake, parks and schools, and to connect trails with other trails so as to achieve a continuous network within the City. The bike trail system should also connect with other regional trails, such as the North Shore trail on Forest Service property along the north side of the lake and other trails used by mountain bikers in the mountains south of the City.

Air Transportation

The Valley's air transportation needs are served by the Big Bear City Airport. The airport has a seventy-five foot wide, 5,850 foot long runway which currently handles approximately 40,000 general aviation takeoffs and landings annually. There is a charter service available at the airport, but no commercial carrier services the area. Although the airport is located outside the City and the City has no jurisdiction over its operations, the airport provides a valuable transportation link which serves City residents. The City will continue to provide support and coordination on any airport issues which affect City residents.

FUTURE DIRECTIONS

Provision of adequate circulation is vital to the long-term planned development of the City. Additionally, maintaining links between the City and the surrounding region is critical for sustaining economic development and developing jobs for Big Bear Lake residents. Construction of needed facilities will occur over a long time frame. The primary challenge for the City is to assure that adequate circulation improvements are properly phased and available for use at the time they are needed. The rate at which circulation facilities are constructed will be determined by their cost and availability of funding. This Element sets forth the City's goals to ensure that the circulation system is adequate to serve the community and visitors, now and in the future.

Exhibit C-1
Circulation Plan Map

TO BE REPLACED WITH MAP EXHIBIT

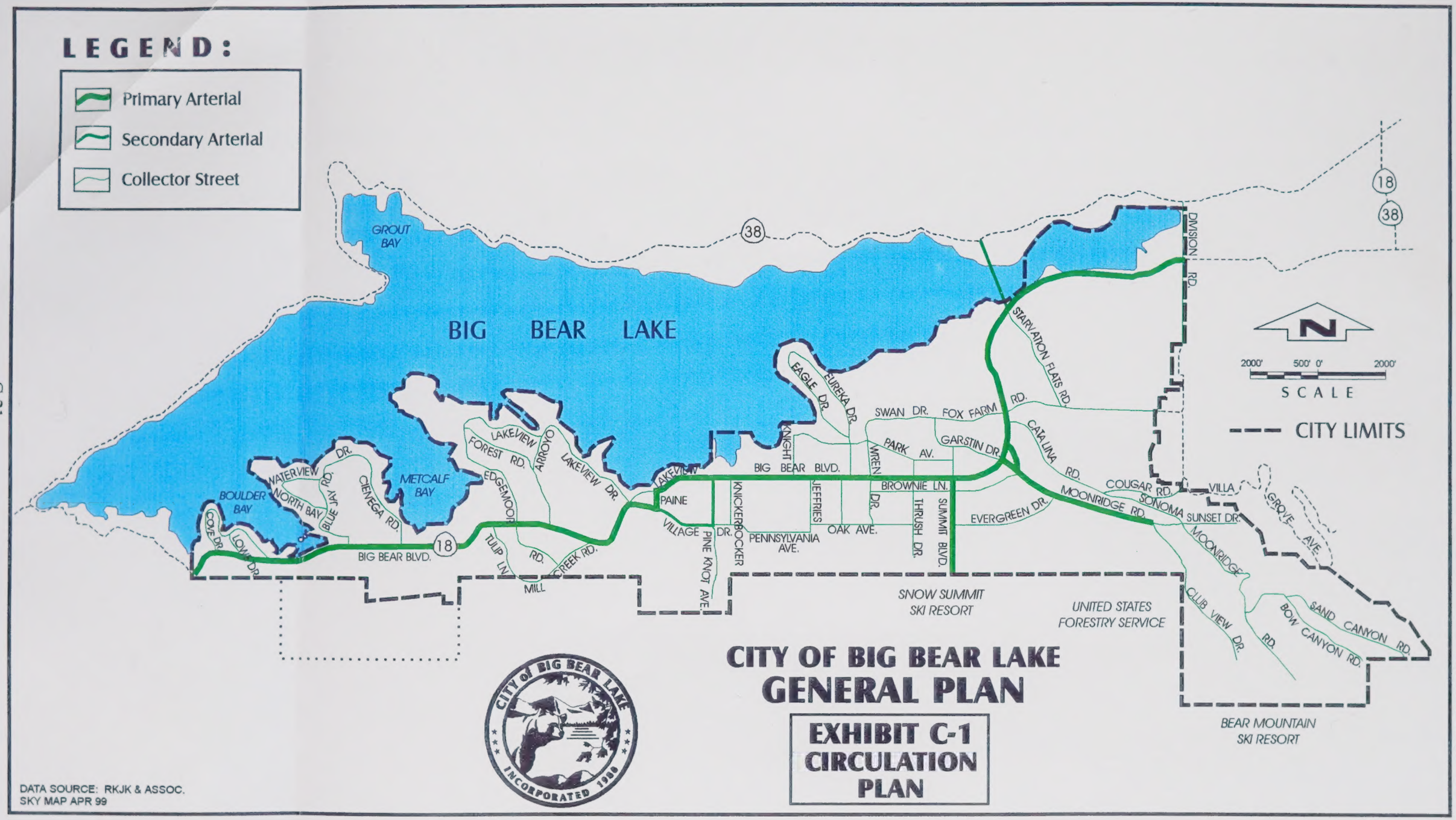
LEGEND:
Primary Arterial
Secondary Arterial
Collector Street
BIG BEAR LAKE
GROUT BAY
METCALF BAY
BOULDER BAY
NORTH BAY
WATERVIEW DR.
BLUE JAY RD.
CIENEGA RD.
COVE DR.
LOW DR.
BIG BEAR BLVD.
18
38
FOREST RD.
EDGEMOOR
LAKEVIEW
ARROYO
LAKEVIEW DR.
TULIP LN.
MILL RD.
CREEK RD.
PAINE
VILLAGE
PINE KNOT AVE.
KNICKERBOCKER DR.
PENNSYLVANIA AVE.
JEFFRIES
OAK AVE.
KNIGHT
MREN DR.
THRUSH DR.
SUMMIT BLVD.
EAGLE DR.
EUREKA DR.
SWAN DR.
FOX FARM RD.
PARK AV.
GARSTIN DR.
BROWNIE LN.
EVERGREEN DR.
STARVATION FLATS RD.
CATALINA RD.
MOONRIDGE RD.
COUGAR RD.
SONOMA
SUNSET DR.
VILLA
GROVE AVE.
MOONRIDGE
CLUB VIEW DR.
BOW CANYON RD.
SAND CANYON RD.
DIVISION RD.
SNOW SUMMIT SKI RESORT
UNITED STATES FORESTRY SERVICE
BEAR MOUNTAIN SKI RESORT
N
2000' 500' 0' 2000'
SCALE
CITY LIMITS
CITY OF BIG BEAR LAKE
INCORPORATED 1980
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT C-1
CIRCULATION PLAN
DATA SOURCE: RKJK & ASSOC.
SKY MAP APR 99

EXHIBIT C-1

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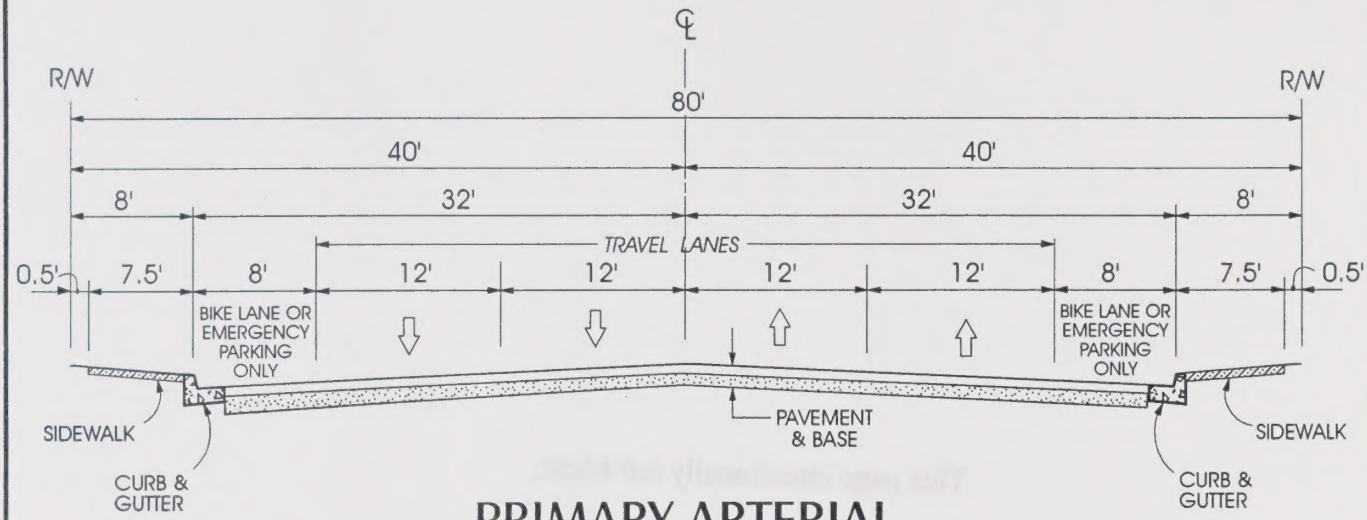
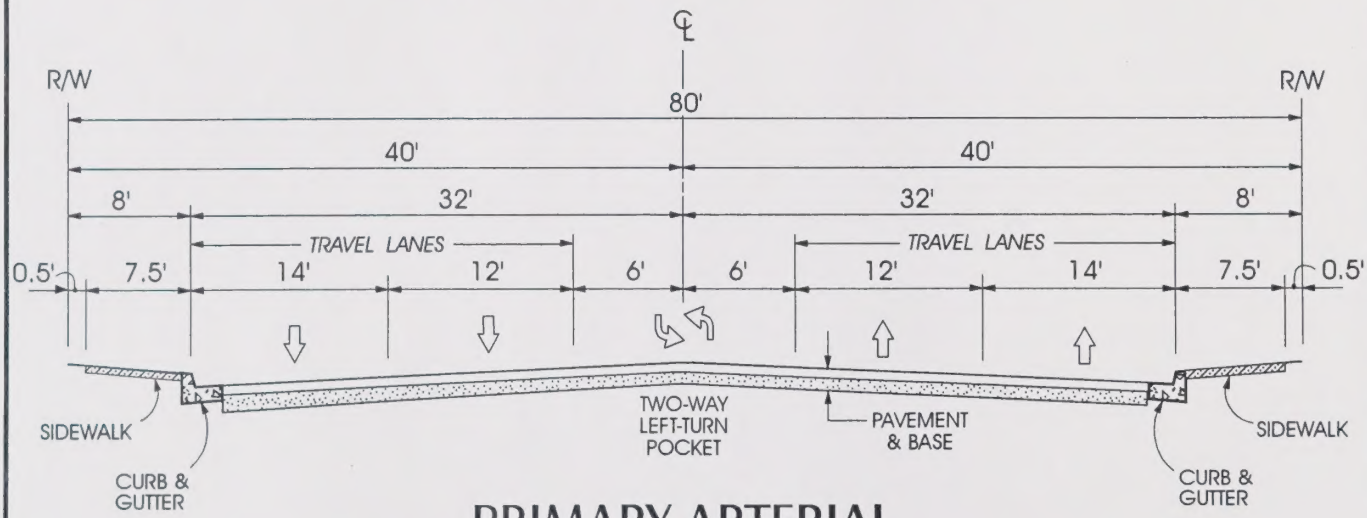


PRIMARY ARTERIAL

(WITH BIKE LANES OR EMERGENCY PARKING)

TYPICAL SECTION



PRIMARY ARTERIAL

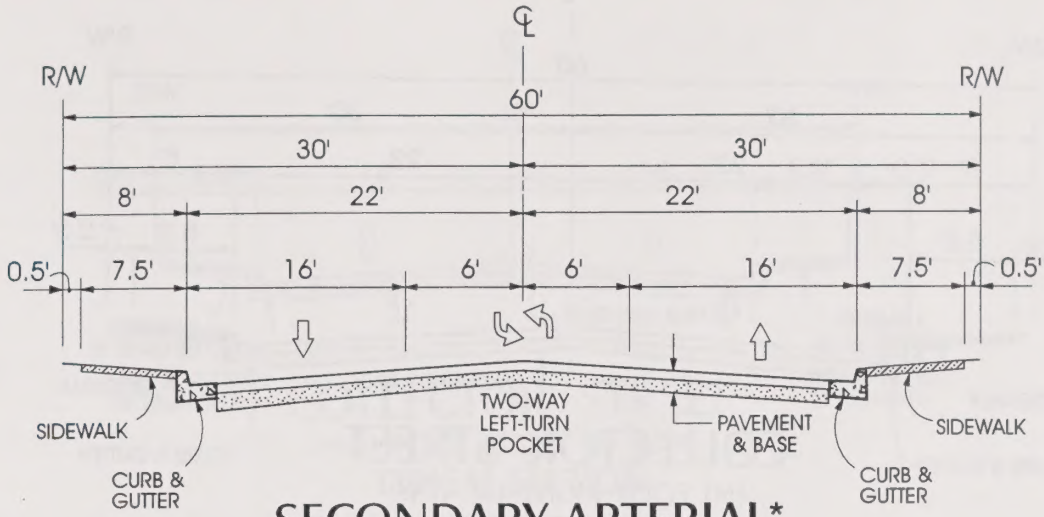
(WITH TWO-WAY LEFT-TURN POCKET)

TYPICAL SECTION

CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT C-2a
RECOMMENDED TYPICAL ROADWAY CROSS-SECTIONS

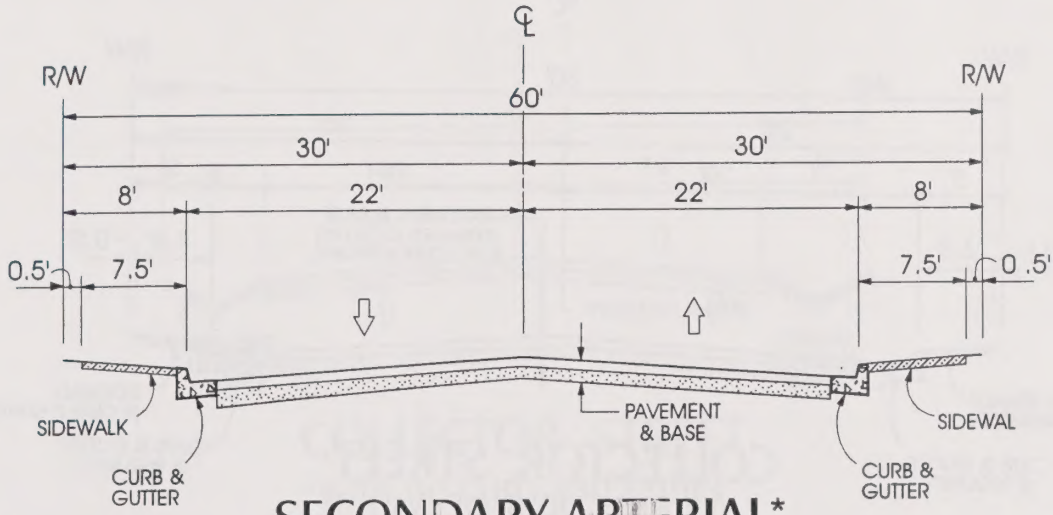
EXHIBIT C-2b



SECONDARY ARTERIAL*

(WITH TWO-WAY LEFT-TURN POCKET)

TYPICAL SECTION



SECONDARY ARTERIAL*

(NO TWO-WAY LEFT-TURN POCKET)

TYPICAL SECTION

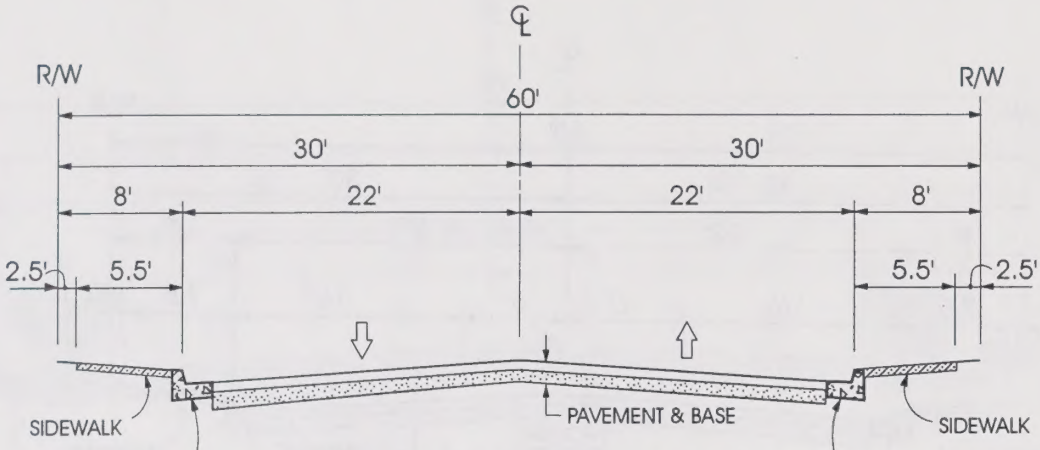
*THESE CROSS SECTIONS MAY BE MODIFIED BASED UPON ADOPTED SPECIFIC PLANS OR EXISTING CONDITIONS

CITY OF BIG BEAR LAKE

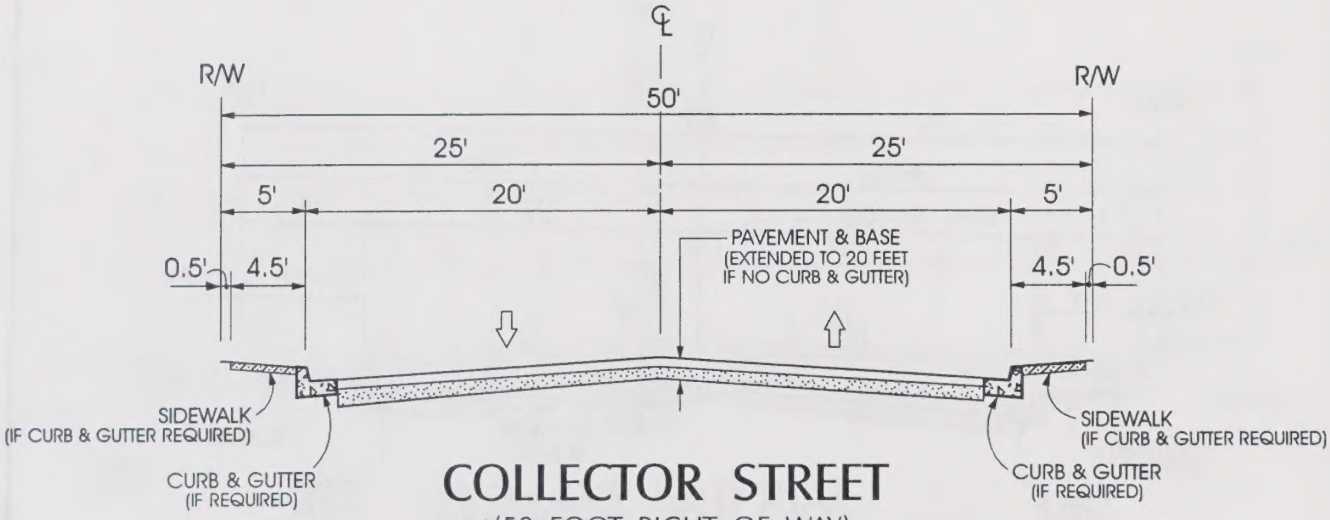
GENERAL PLAN

EXHIBIT C-2b

RECOMMENDED TYPICAL ROADWAY CROSS-SECTIONS



COLLECTOR STREET
(60 FOOT RIGHT OF WAY)
TYPICAL SECTION



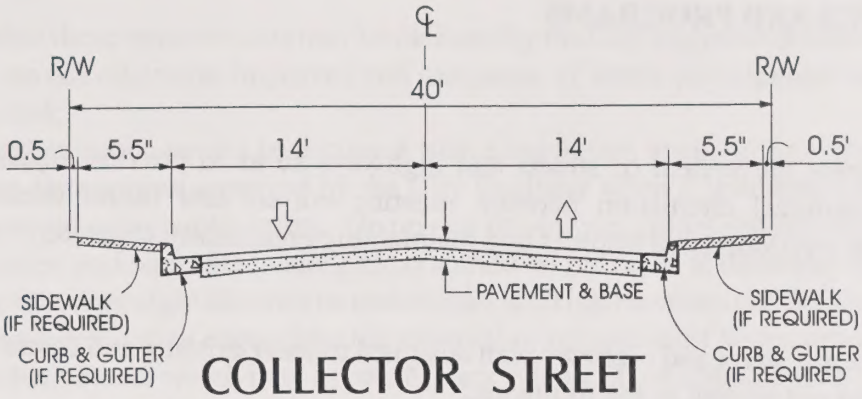
COLLECTOR STREET
*(50 FOOT RIGHT OF WAY)
TYPICAL SECTION

*ACCEPTABLE ONLY IF EXISTING DEVELOPMENT PRECLUDES A 60 FOOT RIGHT OF WAY.

CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT C-2c
RECOMMENDED TYPICAL ROADWAY CROSS-SECTIONS

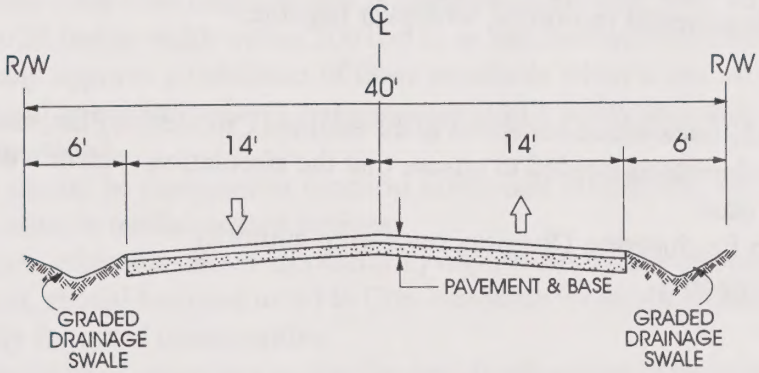
EXHIBIT C-2d



COLLECTOR STREET

*(40 FOOT RIGHT OF WAY)

TYPICAL SECTION



COLLECTOR STREET

with no curb and gutter

*(40 FOOT RIGHT OF WAY)

TYPICAL SECTION

*ACCEPTABLE ONLY IF EXISTING DEVELOPMENT PRECLUDES A 60 FOOT RIGHT OF WAY.

CITY OF BIG BEAR LAKE

GENERAL PLAN

EXHIBIT C-2d

RECOMMENDED TYPICAL ROADWAY CROSS-SECTIONS

CIRCULATION ELEMENT
GOALS, POLICIES AND PROGRAMS

GOAL C 1

Maintain and enhance the system of streets and highways so as to provide a safe, efficient, attractive and economical circulation network meeting current and future demands while minimizing adverse environmental impacts and maintaining community character.

Policy C 1.1
Adopt and implement a street and highway plan designed to meet existing and future circulation needs, including but not limited to the following:

a. Street widths and design standards shall be established to accommodate the projected traffic to be generated by build-out of the land use plan;
b. Roadways within the planning area shall be designated as major arterial, secondary arterial, collector or local streets, with all streets other than local streets shown on the Circulation Plan as depicted on Exhibit C-1;
c. All roadways shall be required to be designed and constructed in accordance with the adopted Circulation Plan (Exhibit C-1), to ensure appropriate capacity and level of service for each roadway;
d. The circulation system should be designed so as to protect existing neighborhoods and/or significant environmental resources, wherever feasible.

Program C 1.1.1
Adopt a Master Plan of Roads which conforms to the adopted Circulation Plan, and maintain these documents with amendments as needed to ensure that the circulation system will be adequate to support planned land uses.
Responsible Agency: Engineering Division, reviewing authority
Schedule: 1999 and ongoing

Policy C 1.2
Adopt standards for roadway design and level of service which promote public safety, convenience and efficiency, including the following:

a. Strive to maintain a Level of Service E or better on all intersections and roadway segments within the City during peak traffic times, and a Level of Service D or better during weekdays and off-peak times, to the extent practical;
b. Require that streets be constructed and maintained in accordance with standard cross sections as shown on Exhibit C-2, except as modified by adopted specific plans or as otherwise approved by the City Engineer, when it can be demonstrated that deviating from these cross sections will not impair public safety;
c. Require installation of curb, gutter, match-up paving and sidewalks within public rights-of-way or where deemed necessary to protect public safety and enhance public convenience,

except that these requirements may be deferred by the City Engineer in cases where adjacent streets are not otherwise improved and assurance of future participation in improvements is provided;

d. Require that public streets be designed with a maximum grade of ten (10) percent, except for short distances as approved by the City Engineer when it is determined that the street design provides for public safety. On private driveways, grades should not exceed fourteen (14) percent and adequate landing areas should be provided at driveway approaches;

e. Require that clear sight distance be maintained at all intersections and driveway approaches. This requirement may necessitate the removal or relocation of landscaping, signs or other visual obstructions which may impair drivers' views of oncoming traffic;

f. Allow on-street parking on City streets, except for State Route 18 or where otherwise restricted for snow removal or as determined by the City Council;

g. Where a roadway changes designations, the higher designation should be carried through the intersection where the change occurs. A transition of at least 600 feet should be anticipated where this occurs;

h. Avoid the use of one-way streets unless traffic analysis warrants their use and other alternatives to achieving mobility and capacity of the affected streets have been evaluated and found to be infeasible;

i. Require a minimum 26-foot wide paved access from an improved public street to all developments other than single family residences on existing lots; access roads should be increased to 28 feet in width within 200 feet of an intersection with a public street. The City Engineer may approve a reduction of these standards when it can be determined that site grading would be minimized and that adequate public safety and emergency access can be otherwise provided.

j. Roadways should be designed to function safely and effectively, without the subsequent need for excessive traffic control devices;

k. Private streets, other than driveways and alleyways typically associated with multiple family development, should be constructed to City standards for public rights-of-way, and should be used only for gated communities.

l. Require provision of secondary access for new development to provide emergency ingress and egress when deemed necessary to protect public health and safety, which may include provision of a 24-foot paved or all-weather surface secondary access roadway or other improvements as determined by the City Engineer and Fire Chief.

Program C1.2.1
Evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Policy C1.3
Intersections shall be designed and located to promote safe and efficient circulation, through application of the following policies:

a. Local to local street intersections and local to collector street intersections should be spaced at least 150 feet apart, from centerline to centerline, unless additional room is needed for queuing in a left turn lane. Intersections on arterial streets should be spaced at least 300 feet apart;
b. Intersections, including knuckles, should generally be perpendicular. Public streets should intersect at a 90 degree angle plus or minus five degrees. Knuckles should be constructed at a 90 degree angle, plus or minus 10 degrees;
c. Excessive grade variations, curves or other features which impair sight distance at intersections should be avoided;
d. For intersections of collector or larger streets, four-way intersections are preferable to offset or "T" intersections.

Program C1.3.1
Evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Policy C1.4
Ensure that the City street system is adequately maintained to promote safety and extend the useful life of roadways, through the following measures:

a. Pro-actively maintain City streets, and include appropriate funding for this in the City's annual budgeting process;
b. Require assurance of long-term maintenance for any private streets constructed within the City;
c. Improve the existing street network through implementation of the Capital Improvement Program and through requirements placed upon new development approvals;
d. Identify and mitigate existing areas of deficiency within the street system and provide mitigation and improvements to the extent practical;
e. Periodically monitor levels of service, traffic accident patterns and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program;
f. Establish and maintain a pothole repair program which emphasizes timely response;
g. Establish and maintain a roadway pavement management program that sets forth budgeting, timelines and schedules for maintenance of existing roadways in the City;
h. Regularly evaluate snow-plowing services provided in the City to ensure that providers minimize damage to streets.

Program C1.4.1
Annually prepare and implement the City's Capital Improvement Plan and Pavement Management Program to ensure compliance with these policies.
Responsible Agency: City Engineer, Public Works Department, City Council to authorize funding
Schedule: Ongoing

Policy C1.5
Seek to maintain and improve the capacity and service levels of arterial streets and highways within the City to enhance mobility, through the following measures:

a. Provide for turn lanes at arterial intersections and along roadway segments where needed to achieve acceptable levels of service;
b. Assure safe and efficient arterial operations through control of access points, signal spacing and other design considerations;
c. Discourage direct residential driveway access onto arterials, except where no other feasible access is available;
d. Encourage use of shared access points for non-residential development to limit the number of driveways along arterial streets;
e. Arterial streets should be designed so as to eliminate jogs and discontinuities and facilitate regional traffic flow;
f. Investigate and evaluate the use of alternate east-west access routes to serve intra-city trips, so as to reduce congestion on SR-18 from local traffic.

Program C1.5.1
Evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies. Require traffic studies or traffic impact analyses for new developments, when appropriate.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Program C1.5.2
Seek funding for design and construction of intersection improvements at the following locations, and implement these improvements when feasible:

a. The intersection of Paine Road, Big Bear Boulevard and Village Drive;
b. The intersection of Pine Knot Avenue and Big Bear Boulevard;
c. The intersection of Moonridge Road/Garstin Drive and Big Bear Boulevard.

Responsible Agency: City Engineer, Public Works Department, City Council
Schedule: Ongoing

Policy C1.6
Ensure that the local street system provides safe and convenient access to residential neighborhoods while protecting the character of these areas, through the following measures:

a. Limit the use of local residential streets by through traffic, except along designated collector streets. To discourage excessive speed and through traffic, street width should not exceed that required for the level of use;
b. Cul-de-sac length should not exceed six hundred (600) feet, and "dog-leg" cul-de-sacs with one or more turns between the bulb and the outlet should be avoided;
c. Direct driveway access should be onto local streets rather than collectors, where feasible;
d. Local streets should be designed to create logical and understandable travel paths for the user;
e. Local street patterns should provide access between neighborhoods, with the exception of through traffic which should be directed onto collectors and arterial streets.

Program C1.6.1
Evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Policy C1.7
Ensure that traffic impacts resulting from new development in the City are adequately evaluated and that applicants are required to construct or provide a fair share contribution towards the improvements needed to mitigate impacts to the local and regional circulation system which are attributable to each development project, through the following measures:

a. Development proposals with the potential to generate traffic volumes or other impacts not adequately evaluated in the Circulation Element and General Plan Environmental Impact Report may be required to prepare and submit a traffic study or traffic impact analysis, as determined by the City Engineer;
b. Projects will be conditioned to ensure that right-of-way is reserved wherever needed to implement the Circulation Plan;
c. All development projects will be evaluated to ensure their conformance with the Circulation Plan;
d. New development will be required to pay a fair share contribution towards the cost of needed regional improvements;
e. In reviewing new development projects, the issue of connectivity will be evaluated as well as roadway capacity, in order to achieve an efficient overall circulation system;
f. Cumulative and regional impacts of new development on the circulation system will be required to be mitigated to the extent feasible, concurrent with development;
g. Ensure that new developments are required to provide improvements or mitigation necessary to maintain the existing or recommended level of service, whichever is less, which may include construction of improvements or payment of in-lieu fees.

Program C1.7.1
Through the development review and environmental review processes, evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies, and require mitigation of traffic impacts through appropriate means.
Responsible Agency: Development Review Committee, City Engineer and reviewing authority
Schedule: Ongoing

Policy C1.8
Plan for the development of streetscapes on arterials which present an aesthetically pleasing appearance, promote ease of use for pedestrians and bicycles, and provide for maximum public safety through their design features, including the following measures:

a. Encourage use of landscaping and construction materials which discourage graffiti on walls adjacent to public rights-of-way.
b. Encourage the use of street furniture such as seating, light standards, trash receptacles and other similar features to establish design themes on arterial streets and provide amenities for pedestrians, where appropriate.
c. Promote unified landscape treatment on arterial streets, where appropriate. Where a design theme has been established on a street, promote the extension of that theme along other portions of the street, where feasible and appropriate.

Program C1.8.1
Through the development review and environmental review processes, evaluate circulation plans and street improvement plans for all new developments and capital improvement projects to ensure compliance with these policies, and require improvements when warranted.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing

Policy C1.9
Participate in multi-jurisdictional efforts to upgrade and expand the regional street and highway network, and to plan for feasible alternate modes of transportation connecting the Big Bear Valley with other areas, through the following measures:

a. Cooperate with other agencies and jurisdictions, including Caltrans, SANBAG, San Bernardino County and the U. S. Forest Service, regarding regional transportation issues relating to the City which may include but are not be limited to the SR-18 bridge project and improvements to State Highways 38, 18 and 330;
b. Support local, regional, state and federal agencies in identifying and implementing funding alternatives to upgrade the circulation system within the City;
c. Communicate regularly with Caltrans to obtain advance notice of construction schedules, road closures, winter road conditions, alternative routes and other conditions which affect the City's residents and visitors;
d. Cooperate and coordinate with Big Bear Airport District regarding issues affecting the City.

Program C1.9.1
Participate on regional transportation committees and coordinate with other agencies regarding plans, programs, funding sources and services which affect the quality and safety of the City's circulation system.
Responsible Agency: Planning, Engineering, Public Works Divisions, City Manager and City Council
Schedule: Ongoing

Policy C1.10
Ensure adequate access within the planning area for trucks while protecting incompatible uses from through truck traffic, by designating SR-18 throughout the City limits as a truck route and by restricting through truck routes within residential neighborhoods.

Program C1.10.1
Coordinate with Caltrans to designate and sign SR-18 as a truck route within City limits.
Responsible Agency: Engineering Division
Schedule: 1999 and ongoing

GOAL C2

Reduce the number of trips and vehicle miles traveled by individuals within the City, and to and from the City.

Policy C2.1
Continue to participate in provision of public transit services for City and Valley residents, and expansion of transit service to meet growth when warranted and feasible.

Program C2.1.1
Continue to participate in the Mountain Area Rapid Transit Authority (MARTA) as a member of the joint powers agency, and provide support and coordination as needed.
Responsible Agency: Public Works, City Manager, City Council
Schedule: Ongoing.

Program C2.1.2
Promote the use of public transit by assisting in the designation of safe and convenient transit stops, with seating and shelters where appropriate.
Responsible Agency: City Engineer, Planning Division
Schedule: Ongoing

Policy C2.2
Ensure compliance with the County's Congestion Management Plan (CMP).

Program C2.2.1
Require that new development projects which have the potential to affect the level of service on designated CMP roadways shall comply with the CMP.
Responsible Agency: City Engineer, reviewing authority
Schedule: Ongoing

Program C2.2.2
Assist with monitoring requirements on CMP roadways, if needed.
Responsible Agency: City Engineer
Schedule: Annually or as required by the CMP.

Policy C2.3
Evaluate the feasibility of providing shuttle service within the City for special events, to reduce congestion and provide more convenient access between parking and such events.

Program C2.3.1
Work with event promoters and other interested parties to assist in studying the feasibility and cost effectiveness of establishing remote parking and shuttle services for special events.
Responsible Agency: Planning and Engineering Divisions
Schedule: Ongoing as needed

GOAL C3
Encourage the use of non-vehicular transportation throughout the city.

Policy C3.1
Enhance accessibility and convenience for bicyclists and pedestrians, and plan for provision of scenic recreational trails in the City where practical.

Program C3.1.1
Prepare a Master Plan for Trails for the City which includes but is not limited to the following issues:

a. Use of flood control easements and public utility easements for trails;
b. Use of public rights of way for trails;
c. Trail links needed between open space and recreational areas;
d. Potential locations for trails near the lakefront;
e. Potential locations for trails along Rathbun Creek;
f. Appropriate locations for on-street bikeways;
g. Links with existing and planned trails in unincorporated County areas and the U. S. Forest Service;
h. Trail locations for bicycles as well as multi-purpose hiking trails;
i. Convenient trail links to activity areas, including schools, parks and shopping districts;
j. Availability of funding mechanisms for trail acquisition and development.

Responsible Agency: Planning and Engineering Divisions to prepare master plan; Planning Commission and City Council to review and adopt
Schedule: Master plan to be completed in 2001; implementation ongoing.

Program C3.1.2
Require bicycle parking in commercial developments where appropriate, located in a convenient area of the site which is visible from adjacent storefronts for security purposes.
Responsible Agency: Planning Division, reviewing authority
Schedule: Ongoing

Program C3.1.3
Promote accessibility to all City-owned facilities by bicycles and pedestrians, to include secure bicycle parking areas where appropriate.
Responsible Agency: Planning Division, lead agency and reviewing authority
Schedule: Ongoing

Program C3.1.4
In review of new development proposals, evaluate the accessibility of proposed facilities for pedestrians and bicyclists, and ensure that safe convenient access links are provided on site as well as connections from the site to public sidewalks and adjacent developments, where appropriate.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Policy C3.2
Expand opportunities for pedestrian access within the community by providing for sidewalks where needed for public safety and convenience.

Program C3.2.1
Require provision of sidewalks on all new commercial and residential development and within residential developments, except for individual homes on existing lots where no improvements exist or are required. Where appropriate, safe and convenient walkways should be provided within and adjacent to commercial centers to provide access between stores and between parking areas and stores.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

ENVIRONMENTAL RESOURCES ELEMENT

CHAPTER 1: **Biological Resources**

CHAPTER 2: **Cultural Resources**

CHAPTER 3: **Water Resources**

CHAPTER 4: **Air Resources**

CHAPTER 5: **Energy and Mineral Resources**

CHAPTER 1: BIOLOGICAL RESOURCES

PURPOSE

The purpose of the Biological Resources Chapter is to identify significant biological resources within the planning area, including habitat for sensitive and endangered species, and to establish a plan to ensure that future development is designed to preserve these resources where feasible or provide mitigation as appropriate. The Chapter is intended to provide a basis for understanding biological resource issues and to establish goals, policies and programs to conserve these biological resources for the benefit of the entire community.

BACKGROUND

The Biological Resources Chapter has a direct relationship with the Land Use Element because the distribution of land uses has been designed to consider the location of biological resources and to designate uses with lower intensity in these areas. The Chapter is also related to the Open Space, Parks and Recreation Element in that several areas known to contain sensitive species have been designated as open space, and policies in the Community Design Element encourage the preservation of these areas as open space. In addition, the Chapter relates to the Community Design Element in that policies recommending the preservation of significant trees, vegetation and habitat reflect the high value placed by the community on the rich and varied array of local biological resources. Because of their importance to the community character, biological resources are also seen to have an economic value in attracting visitors, as reflected in the economic development goals, policies and programs contained in the Land Use Element.

California Government Code Section 65302 (d) requires that the General Plan include an element that addresses the conservation or preservation of wildlife resources. It also requires that the element and supporting documentation provide inventories of natural vegetation, fish and wildlife and their habitat, including rare and endangered species. Consistent with requirements, this element includes goals, policies and programs, as well as plans and resource maps showing areas important to the preservation of plant and animal life, including habitat for wildlife species, and areas required for ecological and scientific study purposes. Programs to assure the preservation of biological resources are also included.

In the City of Big Bear Lake and surrounding lands, and within the context of the General Plan, the Biological Resource Chapter plays a pivotal role in defining the character of the community. The varied and unique geographic and geophysical conditions have created an environment for many diverse and occasionally highly specialized communities of plants and animals, occupying equally varied ecological niches.

The City limits and the Sphere of Influence (SOI) include lands owned and/or managed by the City, State and federal agencies. The combination of a valley basin with expansive and varying geography and habitats, and the complexity of various transition zones, makes the surrounding region a rich

biological resource area. The Big Bear Valley, as a whole, comprises one of the most biologically unique and diverse regions in the country.

Big Bear Lake is located within an elevated mountain basin formed by the San Bernardino Mountains, with elevations in the planning area ranging from approximately 6,800 to 7,500 feet above mean sea level. The elevated surrounding terrain effectively isolates the greater Big Bear Basin from most climatic influences of surrounding areas, except for coastal influences to the west. As a result, the City is located in an area that intercepts water-laden clouds resulting in annual precipitation ranging from 35 inches at the dam to 25 inches within the City and 15 inches in the Baldwin Lake area. Distinguished by its high elevation, mild summers and winter snow, the planning area is an important venue for winter and warm weather sports and recreation.

Six different plant communities occur within the planning area. These include the Montane Coniferous Forest, which occupies much of the planning area and is predominated by pine and fir. The Montane Riparian Scrub community, much of which has been lost to channelization, diversion of water and development, is dominated by willow species. The Montane Meadow community consists of sedges and low sagebrush, and while historically widespread and extensive, has been reduced to a limited number of locations. The Lacustrine Emergent Lakeshore community is found at the lake's edge and is dominated by aquatic plants. The Pebble Plains community is unique to the area, being an adapted relic from the Ice Age period and harboring several special-status species. The Montane Freshwater Marsh community was quite extensive prior to damming of Bear Creek and, while now somewhat more limited and stressed by occasional drought, is being actively preserved. The planning area has also been impacted by non-native vegetation. The various habitat types supported in Big Bear Lake and their importance are briefly discussed below.

HABITAT AND WILDLIFE SPECIES IN THE PLANNING AREA

Biological resources are found in, and are a part of, a habitat, an ecological system or network of interrelationships between living things. Habitat values are controlled by tolerable climate, a varied terrain, adequate space, a dependable food and water supply, soils for healthy plant growth, and shelter and nesting sites. An animal may live across habitat lines to meet all of its needs.

Montane Coniferous Forest

This forest community is composed of a mixture of Jeffrey and Ponderosa pine and white fir, and also includes sugar and lodgepole pines, western juniper and black oak. Occupying a substantial portion of the planning area, this plant community is often somewhat disturbed and fragmented due to development, recreational uses and other human impacts.

Montane Riparian Scrub

Within the planning area, this plant community is characterized by a number of willow species that form scrubby thickets along watercourses fed by springs and melting snow. It may occur in

meadows and defines brooks and streams passing through mixed conifer forests. It may also include an understory composed of rushes and a variety of herbaceous plants. Examples are to be found along parts of Rathbun and Metcalf Creeks, and Red Ant Canyon. Some segments of this community have been lost to channelization, diversion of water and human development.

Montane Meadow

The Montane Meadow plant community is comprised of sedges, low sagebrush, herbs and native grasses as dominant components, and is often associated with alkaline, clay soils. This community is found in a limited number of locations and frequently in degraded condition, although it was substantially more widespread prior to lake inundation and development. Current examples of this community include Metcalf Bay meadow, including the area around the old drive-in theater south of Highway 18 and the area east of Eagle Point to Rathbun Creek. Remnants are also found at the heads of Mallard Lagoon and the inlet immediately to the west, as well as other locations within a quarter mile of the shoreline. This community is associated with a number of special-status species, which are discussed below.

Lacustrine Emergent Lakeshore

This plant community is poorly developed and is associated with areas of disturbance along the lake where the water level fluctuates. This community has expanded over the past approximately 20 years and is associated with the maintenance of high water levels in the lake. It is dominated by aquatic plants, including floating weeds and bulrushes. Willow is also present in many locations.

Montane Freshwater Marsh

Prior to damming of Bear Creek to create Big Bear Lake, an extensive marsh existed in the basin. Today, Stanfield Marsh occupies the eastern edge of Big Bear Lake. This marsh has been subject to extreme variations in water levels, and has been predominantly dry during periods of drought. Consequently, the marsh is not well established. However, in 1982 the Big Bear Municipal Water District (BBMWD) designated the area as a wildlife preserve. BBMWD is actively working in partnership with the Natural Heritage Foundation (NHF) to enhance the wetland vegetation. To that end, NHF controls about 148 acres in association with BBMWD. Native trees have been planted, and a boardwalk has been installed over a portion of the marsh to grant recreational access to the public as a nature trail. There are no motorized vehicles allowed in the marsh. Future plans call for recharge of marsh waters with tertiary-treated sewage effluent, in order to maintain the water level and stabilize the ecological community of the marsh.

Pebble Plains

The Pebble Plains plant community is unique to the area around Big Bear Lake and Holcomb Valley, with only about 30 locations known. These communities are relics of the Ice Age and have adapted over time to current conditions. The occurrence of these communities is restricted to areas of dense

clay soils overlain by gravel of quartzite pebbles. These locations occur as island-like openings in mixed conifer and Jeffrey pine forests and pinyon-juniper woodlands. They often occur as a chain of sites discretely separated by forested areas. Pebble plains are characterized by low, cushion-forming plants, including many rare and special-status plants found only at these locations and within these communities. Many other special-status species are also associated with this plant community, which is considered as a high priority for preservation by the California Natural Diversity Data Base. Remnant pebble plains habitat can be found at various locations in the planning area. There are approximately 12 acres of pebble plains in the Moonridge area, and the Natural Heritage Foundation has a conservation easement on this land for preservation of this area. Most of the pebble plains within the Big Bear Valley are outside of the planning area, in the Sugarloaf and Baldwin Lake Areas.

Common Wildlife Species

The diversity of plant communities in and around the planning area has given rise to a rich assemblage of wildlife. Some common forest mammals include western gray squirrel, lodgepole and Merriam's chipmunks, Audubon cottontail, bobcat, mountain lion, coyote, mule deer, deer mouse, desert woodrat and others. Grizzly bear were rapidly hunted out when the basin was settled by Europeans, however, black bear were introduced from the Sierra Nevada in the 1930s. Non-native feral burros, which have roamed the basin since the early 1800s, compete with native wildlife for food plants and have damaged delicate native plant communities and residential landscapes, and have been otherwise invasive. The USDA Forest Service has removed most of these animals, with the exception of a small population at the east end of the basin.

Common bird species in the Valley include Stellar's jay, plain titmouse, mountain chickadee, white breasted nuthatch, California and mountain quail, and acorn woodpecker, all of which are year-round residents. Seasonal and migrant bird species include black-headed grosbeak, western tanager, and a variety of warbler species. Water fowl include several species of duck, including American coot, American widgeon, ruddy duck, canvasback and others, as well as great blue heron and other wading birds. Common amphibians and reptiles include western toad, western fence lizard, southern alligator lizard, coachwhip, California mountain kingsnake, western rattlesnake and others.

WILDLIFE MANAGEMENT EFFORTS

Several species, including mule deer, gray squirrel, trout and black bear, are managed as public interest species by the USDA Forest Service and the California Department of Fish & Game. Management areas include Metcalf and Rathbun Creeks, which are likely spawning areas for rainbow trout. Mule deer summer range and fawning areas are located in the southern portions of the planning area and on adjacent mountain slopes. Management of bear, coyote and other wildlife species is necessary when they are attracted to and take advantage of open trash containers and other inappropriate food sources in residential and commercial areas. Ultimately, these animals may become habituated to and aggressive towards people, and frequently have to be destroyed. Effective management is therefore important to both wildlife and human populations, and should include

conducting biological resource surveys in sensitive areas proposed for disturbance or development, when warranted.

Sensitive, Rare and Endangered Species

The Big Bear Lake area is host to a wide variety of sensitive plant and animal species, some of which have been listed as threatened or endangered by the federal and/or state governments. The occurrence of species either listed or proposed for listing has a significant effect on land use management and regulation. Animals and plants listed as "threatened" are those whose numbers have dropped to such low levels, and/or whose populations are so isolated that the continuation of the species could be jeopardized. "Endangered" species are those with such limited numbers or subject to extreme circumstances that their extinction is a real possibility.

Both "rare" and "sensitive" species are those determined less sensitive to impacts to their numbers, and where perpetuation does not appear significantly threatened. The Biological Resources Areas Maps (Exhibit ER-1 and ER-2) identify sensitive plant communities and wildlife species known to occur within the planning area.

Table ER-1 lists some of the sensitive species known or likely to occur within or near the planning area, or the greater area encompassed by the San Bernardino National Forest. Other species which may have special status are listed in the Biological Technical Report, contained as an appendix in the Environmental Impact Report.

Birds of Special Concern

Birds comprise one of the most conspicuous and important components of the living environment. The Big Bear Basin is home to a wide variety of bird species. Thirty-seven of these species have special state and/or federal status, including the bald eagle, the American peregrine falcon, and the southwestern willow flycatcher. Other species that may occur in the San Bernardino National Forest vicinity include but are not limited to the Summer tanager, Purple martin, California spotted and Long-eared owls, Loggerhead shrike, Osprey, and several others.

Bald Eagle
In 1998, a population of 15 to 28 bald eagles wintered at Big Bear and Baldwin Lakes. The planning area is used by eagles during the day, although there are currently no night roosts within the planning area. Important perch sites include trees within wooded areas along the southern lake shore, around Metcalf Bay and Eagle Point, and along the eastern shore of the lake. Care should be taken in reviewing development proposals within these areas to ensure continued viable perching and foraging habitat for these important birds, which are identified within the City.

Table ER-1
Special-Status Species Which May Occur in the Planning Area or Vicinity

Specific Name	Common Name	Federal Designation	State Designation
Arenaria ursina	Bear Valley sandwort	Threatened	Not designated
Castilleja cinerea	Ash-gray Indian paintbrush	Threatened	Not designated
Eriogonum kennedyi spp. austromontanum	Southern mountain buckwheat	Threatened	Not designated
Poa atropurpurea	San Bernardino bluegrass	Endangered	Not designated
Sidalcea pedata	Bird's foot checkerbloom	Endangered	Endangered
Taraxacum californicum	California dandelion	Endangered	Not designated
Thelypodium stenopetalum	Slender-petaled thelypodium	Endangered	Endangered
Lesquerella kingii var. bernardina	San Bernardino Mountain bladderpod	Endangered	Not designated
Haliaeetus leucocephalus l.	Bald eagle	Endangered	Endangered
Strix occidentalis occidentalis	California spotted owl	Former Category 2 Candidate Species	Species of Special Concern
Falco peregrinus	American peregrine falcon	Endangered	Endangered
Empidonax traillii extimus	Southwestern willow flycatcher	Endangered	Not designated
Charino bottae umbratica	Southern rubber boa	Former Category 2 Candidate Species	Threatened
Glaucomys sabrinus californicus	San Bernardino flying squirrel	Species of Special Concern	Species of Special Concern

For perch trees, bald eagles prefer large dead-topped trees near the lake with a view over the water for fishing. These dead trees, known as snags, may need to be removed if they become hazardous to nearby structures. It is recommended that for any snag over 18 inches in diameter which must be cut, a replacement perch tree be created by trimming the branches of an existing tree in the vicinity, so as to create a perch site and view corridor. Additionally, activities which could disturb eagles near the lakeshore, such as outdoor construction using heavy equipment or certain types of film permits, should be restricted from December 1 through April 1 (although indoor construction during this time would not cause a problem). Proposals to use the lakeshore during this time frame should be evaluated on a case by case basis to determine if there would be an adverse impact on eagle habitat. The General Plan Program EIR and Biology appendix provide more information on eagle habitat.

Exhibit ER-1 City of Big Bear Lake Important Wildlife Resource Areas

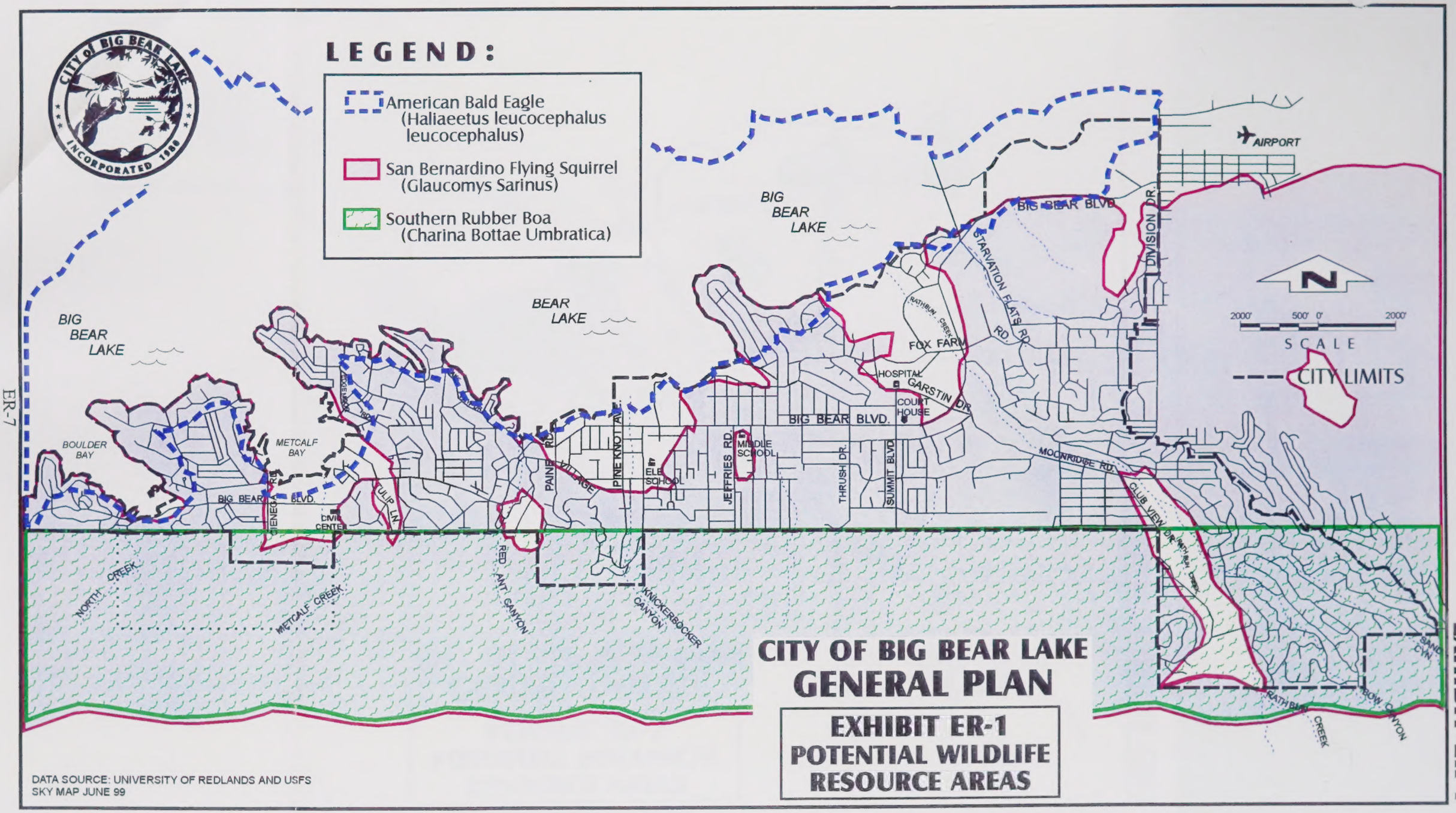
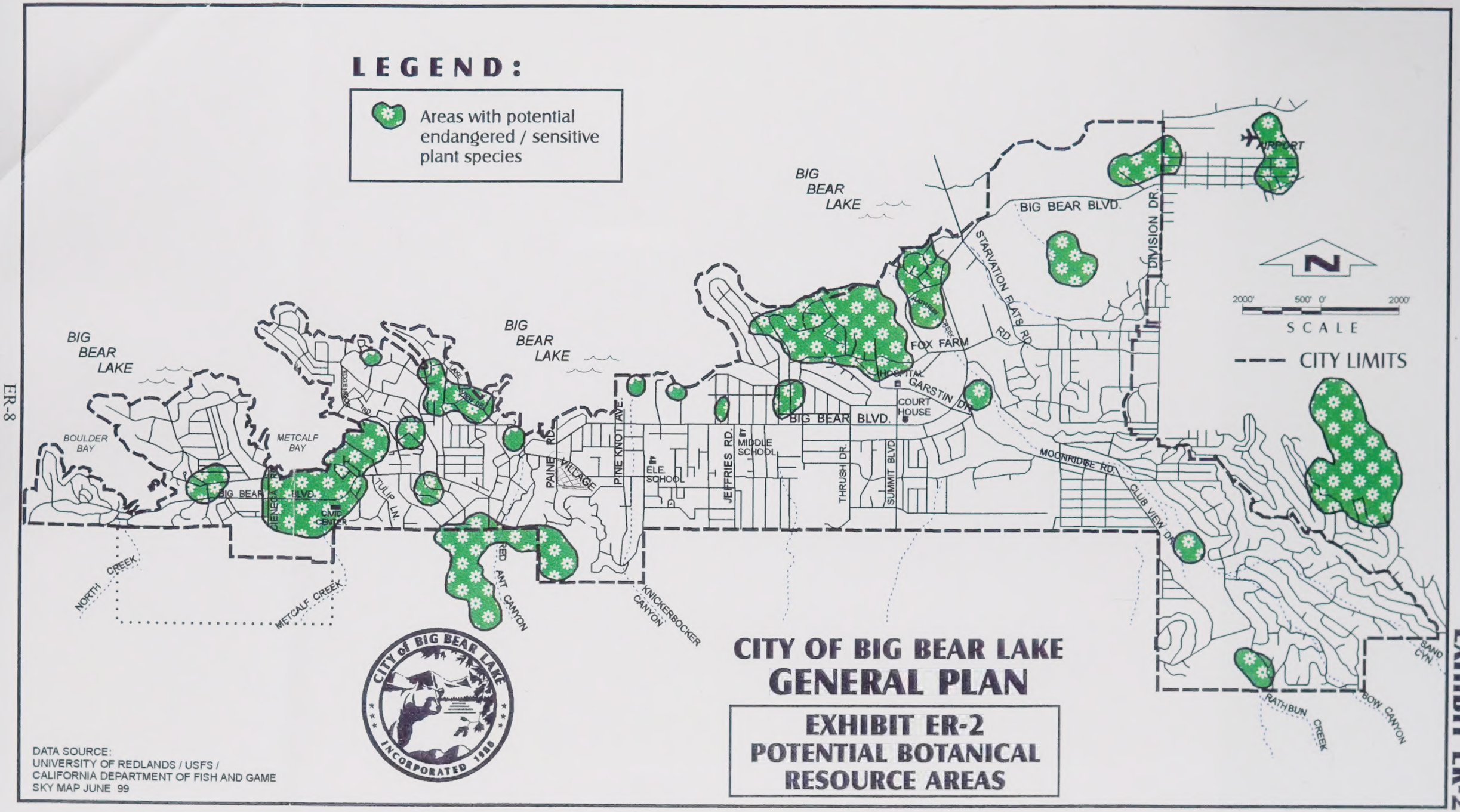

LEGEND:
American Bald Eagle (Haliaeetus leucocephalus leucocephalus)
San Bernardino Flying Squirrel (Glaucomys Sarinus)
Southern Rubber Boa (Charina Bottae Umbratica)
CITY OF BIG BEAR LAKE
INCORPORATED 1980
BIG BEAR LAKE
BEAR LAKE
BOULDER BAY
METCALF BAY
BIG BEAR BLVD.
CIVIC CENTER
TULIP LN.
PAINE RD.
PINE KNOT AVE.
ELE SCHOOL
JEFFRIES RD.
MIDDLE SCHOOL
THRUSH DR.
SUMMIT BLVD.
COURT HOUSE
HOSPITAL
GARSTIN DR.
FOX FARM
RATHBUN CREEK
STARVATION FLATS RD.
MOONRIDGE RD.
CLUB VIEW DR.
DIVISION DR.
AIRPORT
NORTH CREEK
METCALF CREEK
RED ANT CANYON
KNICKERBOCKER CANYON
SAND CYN.
BOW CANYON
2000' 500' 0' 2000'
SCALE
CITY LIMITS
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT ER-1
POTENTIAL WILDLIFE RESOURCE AREAS
DATA SOURCE: UNIVERSITY OF REDLANDS AND USFS
SKY MAP JUNE 99

EXHIBIT ER-1



CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT ER-2
POTENTIAL BOTANICAL RESOURCE AREAS

EXHIBIT ER-2

Exhibit ER-2 City of Big Bear Lake Botanically Important Resources

American Peregrine Falcon

The American peregrine falcon is one of the best known of the endangered birds, which is known to occur in San Bernardino National Forest. With an extensive breeding and release program, California's falcon population is rapidly recovering and there is hope of reestablishing a resident breeding population if water quality and health of waterfowl are preserved and enhanced. It will also be essential that disturbance from recreational use near perches and nesting and foraging areas be controlled. This falcon migrates through the planning area and hunts in the fall, but presents no development or land use restrictions to the City.

Southwestern Willow Flycatcher

The Southwestern willow flycatcher prefers dense, shrubby habitat, often breeding in willow or other shrub thickets at the edges of meadows, streams, and ponds. Populations have declined with loss of habitat and from parasitism from brown-headed cowbirds. The bird is known to occur in San Bernardino National Forest and is also a migrant in the basin. Protection and restoration of riparian and meadow habitats from human (and pet) encroachment and from invasive non-native plants will benefit this and associated species.

Spotted Owls

Spotted owls have been observed in the US Forest Service property south of the City limits. In general, they appear to avoid residences and other urbanized areas. They prefer a dense forest canopy characterized by large trees, snags and downed logs. Property owners along the southern boundary of the City may assist preservation of spotted owls by maintaining forest cover where possible, and by controlling cats and dogs.

Mammals of Special Concern

While the valley's namesake no longer roams the Big Bear Basin, other important mammals continue to live within and near the planning area. These include ten mammals given special state and/or federal status, including the San Bernardino northern flying squirrel, several species of bats, and a variety of other furry creatures.

San Bernardino Flying Squirrel

This flying squirrel is known from the San Jacinto and San Bernardino Mountains and inhabits coniferous and riparian habitats that are cool and moist, usually near streams and rivers. Flying squirrels are omnivorous, eating everything from seeds to eggs, insects and birds. They have been reported at backyard feeders in the planning area and also occur in areas near the forest edge with limited development. In order to enhance habitat for flying squirrels, mixed conifer forest should be maintained wherever possible. They prefer dense, mature forests, and tend to avoid meadows and pinyon/juniper habitat.

Bats and Other Mammals

Several species of bats, including the pallid, Pacific western big-eared, spotted, greater western mastiff and occult little brown bats may occur in the vicinity. Consuming large numbers of insects, bats forage over water, open meadow, grasslands and pebble plains habitat. They will roost in rock crevices, loose bark on larger trees, mines, tunnels and buildings. Further loss of insect-supporting habitat, exposure to pesticides and disturbance of roosting and hibernation sites will result in the cumulative loss of many of these species.

Other mammals within the Valley include badgers, which may be found in less populated areas of the community, especially where ground squirrel and other prey species are present. Ringtail are associated with rock outcroppings, areas of abundant downed logs, woody debris, and litter, and may occur in riparian and/or less developed portions of the Valley. Mountain lion are also expected to range through the Valley and are closely tied to the deer population, with mule deer being their principal prey.

Reptiles of Special Concern

Southern Rubber Boa

The southern rubber boa is a small snake which inhabits mixed conifer and oak forests between 5,000 and 8,000 feet in elevation. Preferred habitats include old logs, surface rocks, rock outcroppings, springs and other moist areas. Although no rubber boas are known to exist within the City limits, they have been sighted in the vicinity of the southern City limits adjacent to US Forest Service property. Land use designations adjacent to the Forest Service are generally low density residential uses, which can be compatible with habitat provided that forest areas are preserved and domestic pets are controlled.

Biological Resources in Urbanizing Areas

From an examination of aerial photographs taken of the planning area and vicinity, it is evident that urbanization clears much, and in some cases all, of the land. Whether one house on a large lot, a large subdivision or a shopping center, the native vegetation and its inherent wildlife habitat value are partially or completely removed. Where landscaping has been introduced, exotic and other non-native plants prevail, which may have limited value as habitat and which may escape and compete with native plants for nutrients and water in the wild.

To address this concern, the City should require that proponents of new development, whether public or private, attempt to preserve trees on-site to the greatest extent practical, and to use plant materials which are complementary to native ecosystems in their landscaping plans. Development projects should also be required to include planting of native trees and shrubs in landscape designs, including

plants salvaged on-site, if possible, which may include the use of landscaped buffers with native vegetation to separate development components. The City should also discourage the use of certain non-native and invasive plant species that compete with native vegetation (see Appendix A of the Biological Technical Report in the General Plan Program EIR).

With respect to sensitive animal species in and adjacent to the planning area, project development plans should incorporate the protection and maintenance of the following natural features, to the extent feasible:

- Rock outcroppings and surface rocks;
- Streams, springs and wet areas;
- Large diameter trees (16 inches and greater in diameter);
- Oak trees;
- Dead standing trees over 16 inches in diameter, provided they are not safety hazards. If hazardous, the feasibility of topping, rather than cutting, should be evaluated;
- Downed logs, especially logs 12 inches and greater in diameter;

In addition, it is recommended that sites be landscaped using native plant species, and that any pines, firs and oaks which are cut should be replaced with new plantings. Dogs and cats should be controlled to minimize their impact on wildlife.

Regional Wildlife Corridors

Regional wildlife corridors include Big Bear Lake, the unoccupied slopes of the surrounding mountains, and streams that drain the Big Bear watershed. The lake allows fish, amphibians and birds to access much of the basin. Marshes also provide this corridor function, connecting differing habitats and plant communities together in an intricate web. The surrounding forests and mountain slopes also provide cover and escape terrain. The various riparian areas, including the Rathbun and Metcalf Creeks, are important and sensitive components which may serve as wildlife corridors.

Coordinated Resource Management Planning

In 1993, the City began participating in a Coordinated Resource Management Planning (CRMP) group for the Big Bear Valley. Other group members included the East Valley Resource Conservation District, U.S. Fish & Wildlife Service, USDA Forest Service and Soil Conservation Service, U.S. Army Corps of Engineers, California Department of Fish & Game, San Bernardino County Flood Control, Bear Mountain Ski Area and others. The group has studied issues of species conservation, habitat status, and resource management and restoration. Some GIS resource mapping was also completed in cooperation with the University of Redlands, and more mapping of resources

is expected to occur. The City will continue to cooperate with this group's efforts based upon availability of City resources and in compliance with other City plans and policies.

Forest Service Management Plan

The USDA Forest Service has established the San Bernardino National Forest Land and Resource Management Plan (LMP) to guide management of forest resources, including those surrounding the planning area. Relevant plan policies and guidelines may be applicable to incorporated lands adjacent to forest lands, including those for Recreation Emphasis Lands located immediately south of the City limits, with habitat managed to protect sensitive species. Other policies and programs are directed toward wildlife management west and south of the City, and toward watershed management for water and wildlife resource protection. Policies and guidelines designed to protect sensitive plants, plant communities and wildlife are also found in this Forest Service plan and should be reviewed when considering land use changes in nearby City areas. This coordination of biological resource and land use management between agencies will help assure coherent and cohesive management across jurisdictional lines.

Natural Heritage Foundation

The Natural Heritage Foundation (NHF) is a non-profit corporation located in the Big Bear Valley which was originally formed for the purpose of providing grants for wildlife preservation. NHF has now become an operating foundation with powers to acquire and maintain wildlife conservation areas, and has taken a lead role in establishing these areas throughout the Valley. NHF controls approximately 1,000 acres south and east of Baldwin Lake, and has formulated a plan to replenish water for the three-spine stickleback fish in the area of Shay Creek. They are proposing to build two ponds for these fish using water from the nearby wastewater treatment plant which has been treated to a tertiary level, pioneering the use of reclaimed water for habitat conservation. Additional water will be used to enhance Stanfield Marsh, where NHF controls about 148 acres in association with the Municipal Water District, and has constructed a boardwalk for recreational purposes (fishing and walking). NHF has also acquired approximately 12 acres in the Moonridge area containing pebble plains, and manages 142 acres in the Castle Glen area.

The Natural Heritage Foundation owns about 3 acres of land along Rathbun Creek, and is currently working with the East Valley Resource Conservation District and San Bernardino County Flood Control District to plan for future construction of flood control improvements upstream, to control runoff and siltation.

The Foundation has prepared studies on the two listed endangered plants within the City's planning area, and has identified the locations of these plants. NHF has prepared a plan with the objective of bringing these species to a point where they may be reclassified from endangered to threatened.

Within the City limits, Thelypodium's only known occurrence is in the Eagle Point area; there are approximately 9 acres in this area which are protected by deed restrictions or are within a drainage easement. NHF has identified 17 sites of Sidalcea within the Valley, but only a few of these are within the City limits. The City of Big Bear Lake will continue to cooperate with the Natural Heritage Foundation in its efforts to identify and preserve special habitat areas. In the future, such efforts may include a joint effort at mitigation banking for protected species.

Use of Exhibits

Exhibits ER-1 and ER-2 have been compiled using the best resources available to the City at the time this General Plan was prepared, including a data base and comments provided by the California Department of Fish and Game, consultation with the U. S. Department of Fish and Wildlife and the U. S. Forest Service, and historical data provided by the University of Redlands. However, it should be noted that the maps show generalized locations of potential biological resources only, and should not be considered as a definitive indication that resources exist or do not exist in any particular location. City staff and project applicants will continue to be responsible for performing biological analysis as required by state and federal laws, where appropriate. In addition, the maps are not intended to be used by the City to support requirements for additional biological analysis or mitigation, except where these requirements are deemed to be appropriate based upon conditions on the project site, available data and review by appropriate agencies at the time the project is proposed.

With respect to Exhibit ER-2, locations of potential habitat areas for bald eagles, southern rubber boa and flying squirrels were provided by the U. S. Forest Service. The intent of providing this mapped information is not to impose development restrictions within the City, but instead to encourage landscaping and tree preservation practices that will encourage the continued viability of these species within the planning area.

FUTURE DIRECTIONS

The City of Big Bear Lake is committed to taking reasonable measures to preserve and enhance much of its remaining unique and valuable biologic resources, while allowing the community to develop within portions of the City designated on the land use map for urban uses. The City's residents and the area's many visitors have shown strong support for the natural and biological resources within the Big Bear Valley. In every facet of community planning and development regulation, the City will have the opportunity to manage growth and mitigate biological impacts. This will be accomplished through implementation of the General Plan, Development Code, Specific Plans, and various development-related ordinances. It can also be accomplished through the integration of biological resource and open space/conservation principles in public works projects, including road and highway development, and the design and construction of stormwater detention basins and drainage basins.

BIOLOGICAL RESOURCES
GOALS, POLICIES AND PROGRAMS

GOAL ER 1

Identification of significant biological resources within the planning area and mitigation of impacts to these resources from urban development, in balance with other needs of the community and with special consideration given to preservation of listed endangered species in conformance with federal and state laws.

Policy ER 1.1

The City shall act to reasonably conserve habitat of special-status wildlife and native plant species as environmental, economic and aesthetic assets of the community.

Program ER 1.1.1

When potentially significant impacts to biological resources are identified in an initial study conducted under the California Environmental Quality Act (CEQA), the City shall require the project applicant to prepare and submit a biological resource analysis and shall distribute this analysis to the appropriate responsible agencies and require compliance with recommended mitigation measures.

Responsible Agency: Planning Division, responsible agencies and reviewing authority

Schedule: Continue an ongoing program

Program ER 1.1.2

The City shall take measures to encourage the conservation of bald eagles and their habitat in the planning area and throughout the Big Bear Basin, through CEQA review and through adoption of an ordinance addressing protection and/or replacement of identified perch trees.

Responsible Agency: Planning Division, Planning Commission, City Council

Schedule: Revise tree ordinance (Ordinance 92-233) to address preservation of perch trees FY 1999-2000. Implementation ongoing

Program ER 1.1.3

The City, in cooperation with other agencies, shall encourage the conservation of any species in the planning area which are listed as endangered in conformance with applicable state and federal laws, through implementation of CEQA and the Endangered Species Act, investigation of the feasibility of mitigation banking, and through working with appropriate conservation entities to identify and protect sensitive habitat areas.

Responsible Agency: Planning Division, Planning Commission, City Council

Schedule: Ongoing

Program ER 1.1.4

The City shall inform and encourage developers to salvage top soils and trees from their development sites for incorporation into project landscaping to the greatest extent possible. Where appropriate, the use of salvaged or preserved indigenous trees shall be indicated on project landscaping plans submitted to the City for approval.

Responsible Agency: Planning Division

Schedule: Immediately upon adoption; continuous

Program ER 1.1.5

Establish and maintain contacts with local, county, state and federal agencies, as well as private non-profits, and consult and cooperate in efforts to maintain and broaden habitat conservation, especially where essential for the preservation of sensitive, rare and endangered species.

Responsible Agency: Planning Division

Schedule: Ongoing

Program ER 1.1.6

The City shall continue to require the preparation of wildlife surveys and as necessary, Habitat Conservation Plans, in compliance with Federal Section 1-a(1)(B) of the Endangered Species Act and Section 2081 of the State Endangered Species Act.

Responsible Agency: Planning Division in cooperation with Department of Fish & Wildlife, California Department of Fish & Game

Schedule: Ongoing

Program ER 1.1.7

Regulate the use of off-road areas within the planning area for recreational vehicle use, including motorized vehicles and mountain bikes, to restrict these uses to designated trails and sites away from sensitive habitat areas.

Responsible Agency: Planning Division to include in Development Code update, Code Compliance to enforce

Schedule: Adoption 1999; enforcement ongoing

Program ER 1.1.8

The City shall regulate stockpiling of dirt and construction materials and debris, to ensure that these activities do not jeopardize sensitive plants or significant habitat areas.

Responsible Agency: Planning Division to include in Development Code update, Code Compliance to enforce

Schedule: Adoption 1999; enforcement ongoing

Program ER 1.1.9

The City shall require analysis of any development proposal which may impact wetlands, and shall require that wetlands be delineated pursuant to the federal Clean Water Act and as required by the California Department of Fish and Game.

Responsible Agency: Planning Division

Schedule: Ongoing

Policy ER 1.2

The City shall promote public awareness of biological resource issues and encourage good landscaping and construction practices to mitigate impacts to this resource.

Program ER 1.2.1

The City shall compile and distribute a suggested plant material list containing species known to complement local indigenous vegetation and to succeed in local climatic conditions, and shall discourage use of inappropriate plant material through landscape plan review on development projects.

Responsible Agency: Planning Division and reviewing authority

Schedule: Compile plant list brochure 1999; distribution of list and plan review ongoing

Program ER 1.2.2

The City shall encourage and promote public awareness of appropriate landscaping materials and techniques through development of a demonstration xeriscape garden and printed information addressing water conserving irrigation systems, planting practices to protect tree root systems and other appropriate information, including plant species that are strongly discouraged due to their incompatibility with local ecosystems.

Responsible Agency: Demonstration Garden: Public Works; Informational material: Planning and Building and Safety Divisions; Distribution: Planning and Building and Safety Divisions, and DWP

Schedule: Informational material: 1999 and ongoing. Demonstration garden: as funding permits

Program ER 1.2.3

The City will support expansion of Moonridge Zoo Animal Park to display more local plant and animal species in order to enhance public understanding and appreciation of local ecosystems.

Responsible Agency: City Council and staff as directed

Schedule: Based on funding availability

Policy ER 1.3

The City shall proactively assist in regional efforts to maintain the ecological integrity of Big Bear Lake.

Program ER 1.3.1

The City shall continue to confer and cooperate with all other responsible agencies in efforts to maintain and improve the aquatic ecology and associated wildlife habitats within and around the Lake, through the following means:

A. Implement National Pollution Discharge Elimination System (NPDES) requirements to minimize pollutants in the waters reaching the Lake;

B. Regulate uses adjacent to the Lake within the planning area through the Development Code and Municipal Code, as appropriate;

C. Coordinate with the efforts of the Natural Heritage Foundation and other appropriate entities to assist them in maintaining and preserving significant habitat areas near the Lake.

Responsible Agency: Planning Division, Engineering Division, and reviewing authority for new development projects

Schedule: Ongoing

Policy ER 1.4

Collect available data on biological resources within the planning area to maintain an accurate and regularly updated map and information base on sensitive plant and animal species and habitat occurring in the planning area.

Program ER 1.4.1

Coordinate with the Natural Heritage Foundation, the University of Redlands, San Bernardino County, state and federal agencies, and applicants to compile the best available information on biological resources within the planning area, and use this information in evaluating development issues.

Responsible Agency: Planning Division

Schedule: Ongoing

Policy ER 1.5

Encourage the maintenance of natural drainage channels in a manner which allows passage of wildlife and, if appropriate, the establishment of nature trails, while ensuring that these channels can accommodate flows adequately to meet flood control objectives.

Program ER 1.5.1

The City shall investigate the feasibility and appropriateness of establishing interpretive trails within open space and wildlife preserve portions of the planning area, in order to educate users and enhance their appreciation for the various wildlife communities in the City.

Responsible Agency: Planning Division

Schedule: Ongoing

CHAPTER 2: CULTURAL RESOURCES

PURPOSE

The Cultural Resources Chapter provides a summary of the cultural and historical traditions of the City of Big Bear Lake and vicinity. It also provides the basis for the identification of and planning for present-day cultural activities and traditions. The Cultural Resources Chapter is intended to briefly describe the documented pre-history and history of Big Bear Lake, and set forth goals, policies and programs which preserve this heritage and help perpetuate it for future generations.

BACKGROUND

The Cultural Resources Chapter is directly related to the Land Use Element, and may influence the Community Design Element. Cultural traditions and artifacts are the most important links between the past, present and the future. They are the elements that bind communities together and are the common ground that provide community cohesiveness and historic and cultural perspective.

The issues addressed in the Cultural Resources Chapter are a part of those set forth in subdivision (b) of California Government Code Section 65560 and Public Resources Code Section 5076. Also, the implementation of the California Environmental Quality Act (CEQA), Section 21083.2(g), empowers the community to require that adequate research and documentation be conducted when the potential for significant resources exists. A detailed discussion of resource management requirements and guidelines can be found in the General Plan EIR. The Cultural Resources Technical Report prepared for this General Plan by the consulting firm CRM Tech can also be found in the technical appendix of the General Plan EIR. The City currently, through the CEQA process, evaluates the potential for cultural resources when development applications are submitted. As future development proposals are received, they will also be evaluated and the need for cultural resource assessments will be determined.

The Planning Area and Vicinity

Much of the following discussion includes the cultural and archeological factors within the entire Big Bear Valley, rather than focusing on the narrower "planning area" as defined in Chapter 1, which includes the City incorporated boundaries and Sphere of Influence. This information is provided as background information to provide a greater understanding of the historical setting in which the City of Big Bear Lake developed. However, the goals, policies and programs section of the element has been written to focus on only the planning area, since that is the area over which the City now has jurisdiction or will have jurisdiction in the future.

THE PREHISTORIC PERIOD

The City and surrounding mountains lie in an area once occupied by the Serrano Indians, the name given to them by Spanish settlers, meaning "mountain people." The Serrano's homeland encompasses the slopes and lowlands of the north and south faces of the San Bernardino Mountains, ranging as far east as present day Twentynine Palms. Serrano groups were organized in autonomous bands which occupied lands surrounding creeks or streams, and established permanent settlements where flowing water emerged from the mountains. Of the six Serrano clans in Southern California, the Pervetum were found from the Santa Ana River headwaters to Big Bear Valley, and the Yuhavetum, whose territory extended from Highland to the Big Bear Valley. Many Serranos were forced into the California missions in the early 1800s, which significantly affected their traditional cultural practices. Prior to contact with the white man, there were as many as 1,500 Serrano in the area. The number had dwindled to 119 in 1910, as recorded by the federal Census. The Serrano today are generally members of the San Manuel and Morongo Reservations.

Known Local Prehistoric Resource Areas

Overall, a very small number of archaeological sites have been recorded in or near the City. Given the high activity of Serrano Indians in the area, it has been assumed that the small number of records is primarily due to the extensive development in the area which occurred prior to the enacting of the California Environmental Quality Act, when archaeological surveys were not required. The following briefly describes known archaeological sites in or near the City.

One of the earliest recorded prehistoric resources in the area was recorded in 1857-58 by a government surveyor, who found Indian trails in sections 14, 15 and 16, east of the City. Another trail was recorded during this time period, leading to the south shore of Baldwin Lake, which was the site of a Serrano village and pinyon pine gathering area.

A records search performed by CRM Tech at the San Bernardino Archaeological Information Center found that there were two recorded prehistoric sites, one pending site and two isolates found in the study area. The first site, CA-SBR-1650/H was first recorded in 1939. In 1976, as part of the widening project for Highway 18, the Archaeological Research Unit at the University of California, Riverside (ARU-UCR) re-recorded the site. The area, described as a "small temporary occupation site used to exploit seasonal resources," was originally estimated to cover an area of approximately 600 by 150 feet. ARU-UCR's test excavations, however, led to a revision in the site's size. It was finally estimated at between four and five acres. The excavations revealed stone knives, an arrowhead tip, a scraper, and flakes of several types of rock and minerals. The excavation also found glass, indicating that the area had been occupied during the historic period. The site did not reveal evidence of permanent village habitation, however. The site is now within a modern housing development.

The second site, CA-SBR-6009, was recorded in 1987, and consisted of a boulder with two grinding slicks and a mortar. The boulder, as of 1997, is no longer in its original location.

A site where Indians chipped stones to make tools has been located on the Bear Mountain Golf Course, and is listed as Pending Site P1052-1. No further information is currently (1997) available.

A fragment of a grinding stone, found along the shoreline near Pine Knot Landing, has been recorded as Isolate IA1052-1. Another Isolate, IA1313-4, consisted of a flake tool found along the shoreline near Rathbun Creek.

THE HISTORIC PERIOD

The Big Bear Valley's historic period began in 1845, when Governor Pio Pico commissioned Benjamin Wilson to lead a punitive expedition against a band of renegade Native Americans on the Mojave River. He led his group over the virtually unexplored eastern section of the San Bernardino Mountains. According to his diary, when he arrived at what is now Big Bear Lake,

...the whole lake and swamp seemed alive with bear. Twenty-two young Californians went out in pairs, and each pair lassoed one bear, and brought the result back to the camp so that we had at one and the same time eleven bears. This prompted me to give the lake the name it now bears.

In 1851, the Mormons initiated large scale lumbering in the San Bernardino Mountains for the Mormon colony which they named San Bernardino. The Mormon Era in San Bernardino history came to an end in 1857, when Brigham Young recalled his faithful to Salt Lake City. Mormon sawmill owners sold their holdings to eager buyers, and the lumbering era in the mountains began.

The Bear Valley Gold Rush

Gold was discovered in 1848 by James Marshall. Active mining was begun in 1859 by the Jo Caldwell group in the little canyon at the south end of the present-day Stanfield cutoff. While no marker commemorates this historic site, dubbed by the prospectors as "Starvation Flat" because of the harsh winter of 1859-1860, the mounds of tailings are still visible.

According to San Bernardino historian L. Burr Belden, the Bear Valley gold rush was triggered when Bill Holcomb and a companion uncovered a vein of gold-bearing ore on a hillside above Bear Valley. By September 1860, there were as many as one thousand persons mining and prospecting. A ramshackle settlement went up in Upper Holcomb Valley, dubbed "Belleville" by the residents. Within a few months of the birth of Belleville, two other settlements appeared: Clapboard Town and Uniontown, later known as Union Flat. Mining continued in and around Holcomb Valley until recent years, but never again did it quite reach the scale or excitement of the 1860-61 boom days. Although it is not certain how much gold was recovered since Bill Holcomb's 1860 discovery, the miners' legacy includes the first road into the mountains, the first telegraph, telephone and electricity.

In the area of the City now known as China Gardens, Chinese prospectors settled, having been driven out of the Holcomb Valley by their Caucasian counterparts. The Chinese miners are known to have cultivated the area and supplied vegetables to the miners in Holcomb Valley.

Cattle and Ranching

Cattle and sheep grazing in the San Bernardinos developed almost simultaneously with mining and lumber activities. By the 1880s the number of animals swelled into the thousands. Animal grazing, including sheep, cattle, horses, oxen, goats and swine, was more important commercially in the Western forests than lumbering or mining. The first to graze animals on the mountain crest were probably Mormon lumbermen. The industry even expanded into more exotic stock, including fox farming for a time.

Two ranches are known to have existed within the General Plan area: the upper and lower IS Ranch, established in the Moonridge and near Metcalf Bay areas in 1882; and John Metcalf's Pine Lake Ranch, also in the area near Metcalf Bay. Buildings from the Upper and Lower IS Ranch were sited on maps as late as the turn of this century. A barn on Tulip Lane, original to the Lower IS Ranch, is all that currently remains.

Bear Valley Dam

After 1870, communities such as San Bernardino, Redlands, Riverside and others experienced a major land use and economic transition from raising stock animals to cultivation of citrus and vegetable crops. During this period, the population of the San Bernardino Valley increased by thousands. Demand for water to irrigate these crops grew rapidly.

In 1883, Hiram Barton, a Mission Hill viniculturalist and sheep rancher, took Frank E. Brown, an engineer from Riverside, and Dr. Wellwood Murray, of the San Gorgonio Flume Company up to Bear Valley on the recommendation of the State Engineer. The watershed of the western end of Bear Valley appeared to be capable of producing enough water to irrigate approximately 4,000 downstream acres. Frank Brown developed a plan to control and convey the additional irrigation water from Bear Valley. Brown organized the Bear Valley Land and Water Company in the fall of 1883.

Actual construction of the dam began in the late summer of 1883. A temporary earthen dam was constructed to hold back water from the wide marshes as the crews worked downstream. Designed to hold what was to be at that time the world's largest man-made lake/reservoir, many engineers claimed that the thin, single arch granite dam would not hold. Those same doubting engineers later declared it to be "The Eighth Wonder of the World." Much historical information exists regarding the Old Bear Valley Dam. In 1903, Bear Valley Mutual Water Company was formed by the citrus growers in the Redlands-Highland area to own and operate the lake and the dam. Increased demand for irrigation water in the San Bernardino Valley resulted in a plan to construct another, higher Bear Valley Dam. Constructed in 1910-1911 by Bear Valley Mutual Water Co., this approximately 72-foot high multiple-arch dam was placed approximately 100 yards downstream of the Old Bear Valley Dam.

Big Bear Municipal Water District was created in 1964 by the voters of Big Bear Valley as a result of their concern for the lake level's fluctuation. After several years and a court battle, the District purchased land consisting of the lake bottom, both dams, and took over the responsibility of managing the surface of the lake.

A related historical resource is the original 1884 Dam Keeper's House. The structure, built at the same time as the Old Bear Valley Dam, was the residence for the dam keeper employed by the water company. While the stone walls are still intact, the roof and flooring have severely deteriorated. Currently owned by the US Forest Service, it has been uninhabited and in this condition for many years.

Access to the Valley and the Resort Industry

The building of the Bear Valley Dam became a powerful attraction for sportsmen and vacationers. During the summers in the mid-1880s, residents of the San Bernardino Valley traveled up to the Bear Valley to live in the five abandoned log cabins of the dam builders or camp in the forest.

In 1888, Gus Knight and John Metcalf built the Bear Valley Hotel and were booked for the summer even before the new lodge was ready for occupancy.

The only wagon road to Bear Valley came up from the desert via the Cushenbury grade, a long and roundabout way for San Bernardino residents. In 1888, when County officials declined requests for a public road, the Bear Valley Toll Road Company was formed to construct one. The road was long and rough, and travellers had to transfer onto a burro train which delivered them to Bear Valley Hotel after two days of travel. Finally, to provide for a permanent wagon road, Bear Valley Wagonroad Company was incorporated in 1891, and the Bear Valley and Redlands toll roads were built. The County supervisors finally decided to break their long-standing policy against using public funds for mountain roads. In 1915 the Rim of the World Drive finally allowed the average motorist to drive to Big Bear.

The 20th Century

In 1906 came the first substantial real estate transaction in Bear Valley. A Redlands syndicate purchased all 112 acres of the old Knight and Metcalf resort, and named the venture Pine Knot Resort Company. Soon the entire community became known as Pine Knot. It was about this time that the name Big Bear Lake came into use to distinguish it from Little Bear Lake, now known as Lake Arrowhead.

The years from 1915 to 1920 brought major changes to Big Bear. In 1913 there were two resorts; in 1921, there were fifty-two. By 1921, the Pine Knot community had an estimated summer population of 8,000. Besides sixteen stores, five restaurants, several garages and churches, Pine Knot also had the Grizzly Theater, built in 1920, and a weekly newspaper, the *Big Bear Life*. After the 1920s the community continued to grow. Steady and sustained growth continued through the second World

War, when the Bear Valley Mutual Water Company subdivided lands adjacent to the Lake into residential lots. In 1980, Big Bear Lake was incorporated as the first City in the San Bernardino mountains, and it remains the only incorporated city in this area to date.

The majority of the construction during the resort boom of 1916 to 1919 occurred in what is now known as the Village, the site of the original Bear Valley Hotel. The south shore of the Lake, between the dam and the current middle school, was also the site of a number of cabins built mostly by Redlands residents. Many of these early cabins still exist, particularly in Boulder Bay and Metcalf Bay, scattered among more modern construction.

Winter Sports

Winter sports gained a foothold in Big Bear when a temporary ski jump was built on the hill south of Pine Knot in December 1932. A ski championship meet in February 1933 attracted 5,000 visitors. The Big Bear Lake Park District was formed in 1934 to develop winter sports in Bear Valley. In 1939, the San Bernardino Recreation Club and the Big Bear Lake Park District worked together to open a skiing and tobogganing area on what was then known as Lynn Lift (later Snow Forest), just south of what is now the Village. Although winter activities became popular by the end of the 1930s, the great ski resorts would not become a reality until after World War II.

Tommi Tyndall, a naturalized American of Czech and German descent, and an expert ski instructor, must be credited as the person most responsible for popularizing skiing in Big Bear. He came to the Valley in 1947 and established ski schools at the various ski areas, and built the Snow Summit Ski Area in 1952. Since the 1960s, with the advent of snowmaking equipment, skiing and winter sports in Big Bear have grown into a healthy industry, serving thousands of ski and snowboarding enthusiasts yearly.

Historic Sites in the City and Vicinity

A records search conducted for the preparation of this General Plan resulted in the identification of one historic site, one pending site, and one historic structure in the City, in addition to the previously mentioned historic component of an archaeological site adjacent to Big Bear Boulevard Site CA-SBR-1650/H, (which consists of a sparse scatter of bottle glass, square nails and a shotgun shell).

A remnant of the Bear Valley and Redlands Toll Road through the Santa Ana Canyon is recorded as site CA-SBR-8094H. Within the planning area, that portion of the site is now Mill Creek Road. Pending Site P1051-6H is located at Starvation Flat, where old cabin remains believed to be related to the placer gold mining activities were recorded.

Historic structure CHS-2315-1 is the Highway 18 bridge over Metcalf Creek, built by the County in 1924. Although this site is still listed, the bridge has since been significantly altered.

Finally, located outside the planning area near the Bear Mountain Golf Course is Pending Site P1313-26H, recorded as a group of structures, structural remains and refuse dumps, believed to be associated with either stock farming or fox farming in the area dating to the early to mid-twentieth century.

Within the City, there are currently no California Historic Landmarks, California Points of Historical Interest or National Register of Historic Places structures. The first Big Bear dam is, however, listed as a California Historic Landmark; while the Van Dusen Road (Coxey Road), a historic wagon road from Holcomb Valley to Victor Valley built by the gold rush prospectors, occurs within a mile of the City limits, and is listed as a California Point of Historic Interest.

CULTURAL RESOURCES EXHIBITS

Based upon field and literature surveys conducted to date, resource sensitivity maps have been developed, which identify prehistoric and historic resource areas within the planning area. Prehistoric resources are likely to occur in two areas: upland wooded areas, where milling slicks and mortars are likely to occur in boulders; and meadows and stream banks where village and camp sites are possible, particularly near Rathbun and Metcalf Creeks. Historic resources are more likely to occur along the shoreline of the Lake, from Summit Boulevard to the western City limits. Of particular potential sensitivity is the area east of Big Bear Middle School where resources related to the pre-1920 period are likely. East of Summit Boulevard, scattered sites are possible, particularly in the area surrounding Starvation Flats Road.

Field survey techniques used in past years for recording/documenting site surveys were more intuitive and less methodical than those practiced today. Additional information can be made available on potentially sensitive archaeological resources areas by contacting the City Planning staff. The base data used to prepare the Cultural Resources Potential Maps are not published in order to protect resources from disturbance, damage or removal. Potential cultural resource areas are shown on Exhibits ER-3 and ER-4 on the following pages.

It should be noted that the maps show generalized locations of potential cultural resources only, and should not be considered as a definitive indication that resources exist or do not exist in any particular location. City staff and project applicants will continue to be responsible for performing historical or cultural analysis as required by the California Environmental Quality Act, where appropriate. In addition, the maps are not intended to be used by the City to support requirements for additional analysis or mitigation, except where these requirements are deemed to be appropriate based upon conditions on the project site, available data and review by appropriate agencies at the time the project is proposed.

FUTURE DIRECTIONS

The City of Big Bear Lake wishes to ensure that every reasonable effort is made to locate, identify, evaluate and document or preserve all significant archaeological, historical and cultural resources within its jurisdiction. The City must determine what actions or development activities have the

potential to adversely affect known or suspected sites of significance. The manner in which the City must review and address issues related to Cultural Resources is set forth in the California Environmental Quality Act (CEQA, Appendix J, 1992 Edition). Projects involving a federal agency, federal funding or some other federal assistance fall under and must conform with Section 106 of the National Historic Preservation Act of 1966 (NHPA).

As time passes and the community continues to develop, opportunities for documenting and preserving cultural sites and artifacts will decrease. The City should encourage the research, documentation and recordation of appropriate sites and structures within the community and vicinity. In this manner, positive action can be taken to identify, preserve and pass on the important traditions and history of the community.

Insert Archeo Exhibit ER-3 -- Archeological probability map

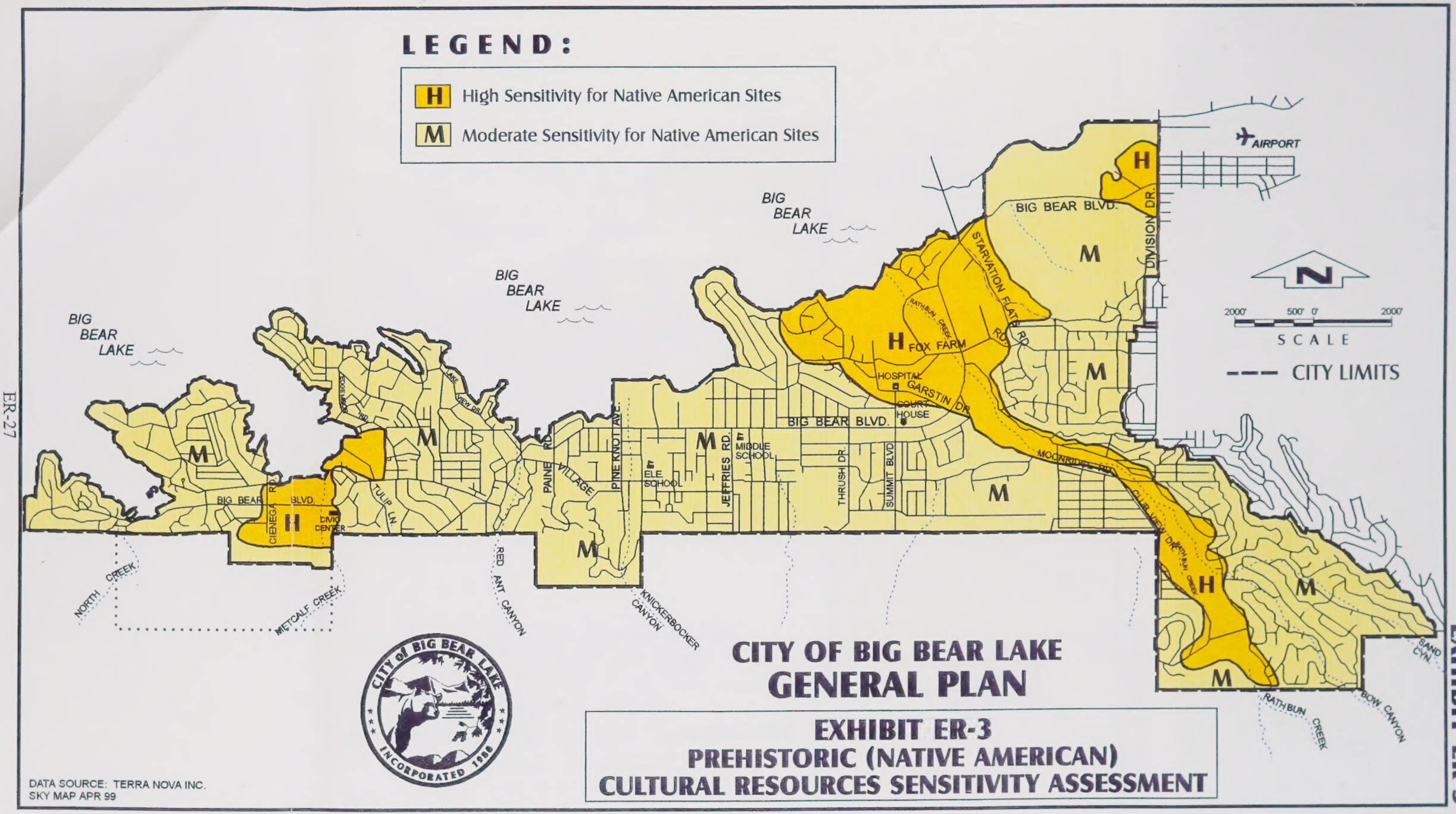
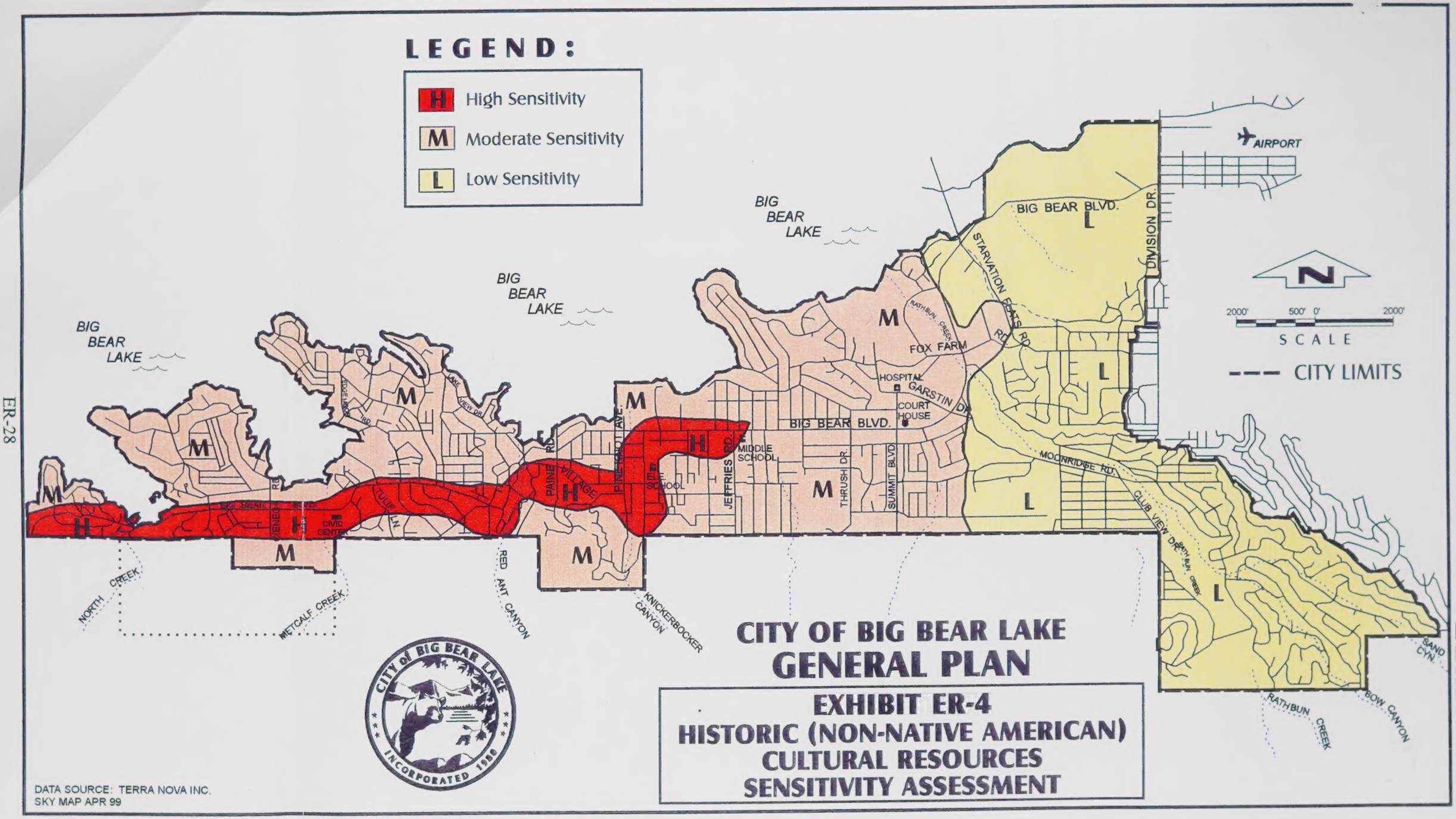

LEGEND:
H High Sensitivity for Native American Sites
M Moderate Sensitivity for Native American Sites
BIG BEAR LAKE
AIRPORT
BIG BEAR BLVD.
DIVISION DR.
STARVATION FLATS RD.
RATHBUN CREEK
FOX FARM
HOSPITAL
GARSTIN DR.
COURT HOUSE
MOONRIDGE RD.
CLUB VIEW DR.
SCALE
2000' 500' 0' 2000'
CITY LIMITS
CIENEGA RD.
CIVIC CENTER
TULIP LN.
LAKE VIEW DR.
PAINE RD.
VILLAGE
PINE KNOT AVE.
ELE SCHOOL
JEFFRIES RD.
MIDDLE SCHOOL
THRUSH DR.
SUMMIT BLVD.
NORTH CREEK
METCALF CREEK
RED ANT CANYON
KNICKERBOCKER CANYON
SAND CYN.
BOW CANYON
CITY of BIG BEAR LAKE
INCORPORATED 1988
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT ER-3
PREHISTORIC (NATIVE AMERICAN)
CULTURAL RESOURCES SENSITIVITY ASSESSMENT
DATA SOURCE: TERRA NOVA INC.
SKY MAP APR 99

EXHIBIT ER-3



CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT ER-4
HISTORIC (NON-NATIVE AMERICAN) CULTURAL RESOURCES SENSITIVITY ASSESSMENT

EXHIBIT ER-4

Insert Archeo Exhibit ER-4 -- Historic Probability map

ARCHAEOLOGICAL AND HISTORIC RESOURCES GOAL, POLICIES AND PROGRAMS

GOAL ER 2

Preservation, maintenance, and enhancement of the City's heritage and resources, including historic and prehistoric cultural artifacts and traditions.

Policy ER 2.1
The City shall take reasonable steps to ensure that cultural resources are located, identified and evaluated, and assure that appropriate action is taken as to the disposition of these resources.

Program ER 2.1.1
Development proposals on sites occurring within areas which are determined through initial evaluation to be potentially significant shall be routed to the San Bernardino Archaeological Information Center (AIC) at the San Bernardino County Museum in Redlands, or other appropriate agency, for comment during initial environmental review in accordance with the notice and comment provisions applicable to responsible agencies under CEQA.
Responsible Agency: Planning Division
Schedule: Ongoing

Program ER 2.1.2
For new development projects on sites recommended for further study based on a high probability of resources on the site, a cultural resource analysis performed by a qualified professional may be required as part of the CEQA review process, and mitigation measures will be required as deemed appropriate.
Responsible Agency: Planning Division
Schedule: Ongoing

Policy ER 2.2
The City shall encourage and support all reasonable efforts to ensure the protection of sensitive archaeological and historic resources from vandalism and illegal collection.

Program ER 2.2.1
Only those with appropriate professional and organizational ties, property owners or prospective property owners shall be provided access to mapping information and similar location-oriented resource information available at the City, to the extent permitted by law.
Responsible Agency: Planning Division
Schedule: Ongoing

Policy ER 2.3
The City shall encourage and support the listing of properties, structures or sites as potential historic landmarks and their inclusion as local or State Historic places, or National Register of Historic Places, as deemed appropriate.

Program ER 2.3.1
The City shall cooperate with local recognized historical associations to review the historical and archaeological resources of the area for possible application for status as a historical landmark or inclusion as local or State Historical Places, or National Register of Historic Places, as needed.
Responsible Agency: Planning Division
Schedule: Upon request and as needed

Program ER 2.3.2
In cooperation with local recognized historical associations, the City will encourage and support the reasonable maintenance, protection and enhancement of cultural resources as valuable assets to the City's economic and tourism resources.
Responsible Agency: Planning Division
Schedule: Ongoing

CHAPTER 3: WATER RESOURCES

PURPOSE

The Water Resources Element addresses issues of water quantity, quality and availability for current and future needs. An important aspect of this element is the coordination and cooperation between the City of Big Bear Lake Department of Water and Power (DWP) and other water agencies responsible for supplying water to the Big Bear Valley. Wastewater management has also become an increasingly important part of water management that is essential to the protection of ground water resources. The goals, policies and programs set forth in this element direct staff and City officials in the City management of this essential resource.

Water resources are obviously essential elements of community planning and development. All of the City's urban land uses, ranging from single-family homes to destination resorts and recreational areas, are dependent upon an adequate and affordable source of water. Although the City of Big Bear Lake has a substantial groundwater resource, this supply is finite and has been substantially impacted by development in the City as well as the Big Bear Valley in general.

The following discussion provides basic background information on this important resource, describing the groundwater basins which supply the City, and the resource management practiced for the lake as well as for the domestic water supply. Finally, the discussion examines the General Plan implications of water supply and resource management for the planning area.

BACKGROUND

Located in the San Bernardino Mountains, Big Bear Lake is a mountain reservoir with a relatively small, east-west oriented basin. According to the California Regional Water Quality Control Board's (CRWQCB) Clean Lakes Study - Phase I (May, 1994), the lake was created as a result of a single arch dam constructed in 1885 across Bear Creek, a tributary of the Santa Ana River. The current lake has a surface area of 3,000 acres, a storage capacity of 73,000 acre-feet and an average depth of 24 feet, with the deepest point of 72.3 feet at the dam[1].

The City of Big Bear Lake Department of Water and Power (DWP), established in June of 1989, provides domestic water service to the City and to several other areas outside the City limits. The Department obtains its water supply from local groundwater. The Division, Village and Rathbun Subareas serve as the groundwater repositories for the City of Big Bear Lake.

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1 CRWQCB, May, 1994.

The Water Resources Element has a direct relationship to the Land Use Element because continued growth in the planning area depends in part upon an adequate water supply. Water resource issues are also associated with the Flooding and Hydrology Element and opportunities to protect and enhance groundwater recharge, as well as the Public Utilities and Fire and Police Protection Elements. The Water Resources Element is also related to the Community Design, Economic Development and Emergency Preparedness Elements.

The Water Resources Element addresses topics set forth in subdivision (d) of California Government Code Section 65302. Also, the implementation of the California Environmental Quality Act (CEQA), Section 21083.2(g), empowers the community to require that adequate research and documentation be conducted when the potential for significant impacts to water and other important resources exists.

Sub-basins

The subareas, or ground water basins, within the Big Bear Lake Watershed are known as Gray's Landing, Grout Creek, North Shore, Division, Rathbun, Village, and Mill Creek.

The Division, Village and Rathbun Subareas are located within the Big Bear Lake/Moonridge Water System, which supply the City of Big Bear Lake, while the Grout Creek Subarea is located within the Fawnskin Water System; these two systems are part of the five water systems of the Department of Water and Power. The two water systems are located in the Big Bear Lake Watershed and have individual water supply facilities; they are not connected physically to each other[2].

Water production in the Division Subarea is derived principally from the southerly Division well field located in alluvial deposits. The northern Division Subarea boundary was moved 2,500 feet southerly of the previous location (established in the 1970s). This placed the northerly Division well field in the North Shore Subarea. The relocated boundary line coincides with a suspected fault zone trending in a general east-west direction.

In the Rathbun Subarea, water production is derived from alluvial deposits and bedrock materials. The production from bedrock is obtained mainly from springs and slant wells[3].

2

LeRoy Crandall and Associates, Geotechnical Consultants, Reevaluation of Sustained Groundwater Yields, Big Bear Lake Watershed, San Bernardino Co., for the City of Big Bear Lake, 1987, p. 18

3

Geoscience Support Services Inc. Re-Evaluation of Maximum Perennial Yield Big Bear Ground Water Basins. June 1992, p. 10.

Water Quality

The DWP has its water quality tested weekly by an independent laboratory. The DWP's water quality meets or exceeds all state and federal standards. The DWP chlorinates the majority of its sources to maintain a chlorine residual in the System. Chlorine is the only substance that is added. There is no other treatment as all the DWP's water sources are from ground water. No lake water or surface waters are utilized for domestic water in the City[4].

Domestic Water

The water supply to the Big Bear Lake Watershed is derived from precipitation in the form of rainfall and snowfall. Precipitation is recorded at Big Bear Lake Dam, Big Bear Ranger Station, Big Bear Lake Station, and the Big Bear City Office Station. Ground water sources are presently sufficient to provide all domestic water service to the City[5].

The City has had an annual average increase of 80 Equivalent Dwelling Units (EDU) for the last several years. The City is currently updating its Master Plan for future facilities, which will identify the water facilities (source, storage and distribution) needed to serve an annual increase of 80 EDU. At this rate, the local groundwater supplies from the Big Bear Lake/Moonridge Water System will be adequate to provide for the annual increase for the next 20-40 years, according to a recently completed DWP Water Master Plan. After that time, additional sources (i.e. wastewater reuse and/or water recharged into the groundwater basins with appropriate permits and approvals) will be needed. The City also completed feasibility studies which show that wastewater and lake water recharge are feasible, although expensive[6].

The City currently collects water impact fees associated with all new development within the City. The impact fee is based on the type of use and its potential water consumption. The impact fee is then used by the Department in conjunction with other revenues to expand the existing water system. The impact fee is in addition to any line extensions a project proponent may be required to construct in order to provide water service to a project. According to Department of Water and Power forecasts, 2.03 million gallons of new reservoir storage needs to be constructed in the

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The City of Big Bear Lake Department of Power and Water, 1996

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Ibid.

6

Ibid.

City/Moonridge area before 2010 in order to accommodate maximum day demand, operational needs, and a contingency of water storage for fire flow[7].

BIG BEAR LAKE

Lake Stabilization

The primary goal of the Big Bear Municipal Water District is the stabilization of Big Bear Lake at as high a level as practical given the availability of water and financing. Stabilization of the lake increases recreational opportunities and stabilizes property values, improves water quality and aesthetic benefits, and supports a healthier fish and wildlife environment. Big Bear Lake is fed from the waters of numerous tributaries. These stream flows, combined with rainfall and natural runoff following the melting of winter snow, provide the source of all water in the lake[8].

In the late 1950s and early 1960s, the Southern California area was in the midst of a rather long and extensive drought. By the mid-1960s Big Bear Lake had been reduced to little more than a large "mud puddle" because of extremely large demands for water from Big Bear Lake for irrigation in the San Bernardino/Redlands area. While it was generally agreed that the dam was originally constructed to provide irrigation water to downhill users, the extensive recreational community of Big Bear Lake decided to attempt to gain control of the lake. The main difficulty is that an irrigation reservoir, by its nature, experiences drastic changes in the lake level to meet the irrigation needs downstream, whereas the recreational interests on the lake require a reasonably stable lake level.

The Big Bear Municipal Water District (MWD, or the District) was formed in 1964 by the people of Big Bear Valley with the express purpose of stabilizing the level of Big Bear Lake. In January 1977 as a result of a stipulated judgement, the MWD purchased title to the dam, reservoir lands lying beneath the lake, and the surface recreation rights to Big Bear Lake. Much documentation is available on the history and legal proceedings involved in the issues of lake maintenance, recreation facility management, and reservoir maintenance[9].

Bear Valley Mutual Water Company (Mutual) was formed in 1903 by the citrus growers of the Redlands/Highland area to give them a dependable water supply under their control[10]. In practice,

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7 Ibid.

8 Big Bear Municipal Water District Management Plan, July 20, 1995, Section I, p.1.

9 Ibid., p. 2

10 Robinson, J.W., The San Bernardinos, p. 173

Mutual determines the irrigation needs downstream and estimates the demand on Big Bear Lake. Mutual has appropriative rights on Bear Creek and its lake storage right, as well as the ownership of all the water inflow to the lake. When the Big Bear Municipal Water District acquired surface recreation rights, lands lying beneath the lake and management of the environment of the lake, it also entered into a legal agreement which would facilitate an acceptable mechanism designed to satisfy the water use requirements of both Mutual and MWD.

Over the years, MWD has implemented several management strategies to maintain the level of the lake in the most cost-effective manner possible. The most recent and comprehensive is a water purchase agreement with San Bernardino Valley Municipal Water District (Muni).

An historic agreement was reached between Big Bear Municipal Water District and Muni in February 1996. A water purchase contract was signed in which Muni agreed to meet all of Mutual's demands for lake water which are not met by the Lake Release Policy. This agreement provides a single reliable source for all in-lieu water for an annual payment and negates the need to pursue any other in-lieu alternatives. The in-lieu water program is monitored through a series of accounts which are managed by the Watermaster Committee. The three member committee consists of one representative from each of three member agencies: Big Bear Municipal Water District, Bear Valley Mutual Water Company and San Bernardino Valley Conservation District. This committee's sole responsibility is to monitor the physical solution to the water rights dispute required by the 1977 judgement. The physical solution is a method wherein the MWD can maintain water in the lake while irrigation interests downstream can be satisfied. Once Mutual has determined irrigation needs, the MWD has the option of either supplying this water from another source (hence, "in-lieu" water--mainly the State Water Project and the Upper Santa Ana ground water basin), or releasing the water from the lake. In this manner, MWD can maintain the lake at an elevation significantly above its historical level[11]. Studies performed for MWD have projected demands for lake releases averaging 4,279 acre feet per year[12].

Reservoir Maintenance

The primary goal of Big Bear Municipal Water District is the stabilization of Big Bear Lake. Such stabilization has enabled the District to implement reservoir maintenance projects to improve water quality and increase recreational opportunities. The maintenance of good water quality in Big Bear Lake is controlled by management of the watershed, control of aquatic plants, alterations to the shoreline or lake bottom, preservation of acceptable fish and wildlife habitat, and protection of the Bear Valley Dam. Because the waters of Big Bear Lake serve a wide variety of uses which provide

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Big Bear Municipal Water District Management Plan, p. 2

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Montgomery Watson Engineers, Inc.

substantial benefits to the people of the area, the condition of the reservoir must be suitable to meet the varying demands.

Even with MWD's program to reduce significantly releases of water at the dam, some fairly large fluctuations in lake levels can occur as a result of high evaporation rates and low humidity conditions, which can remove up to 1/4 inch per day (48 inches per year) off the lake surface. Extended periods of low run-off are projected to have the potential to cause long-term fluctuations in lake levels of up to 15 feet, but it is rare for the lake to fluctuate by more than 3-5 feet in any given year.

Ski Resorts

The area's two ski resorts, Bear Mountain and Snow Summit, each have a contract with MWD to purchase up to 500 acre feet of lake water every ski season to make snow. As a consequence of snow melt and run-off, 50 percent of this water returns to Big Bear Lake, hence MWD's Lake account is debited for 50 percent of the metered usage. An agreement with Mutual provides that in any year during which MWD does not have sufficient water in its Lake account for the sale of water for snowmaking, water shall be advanced from Mutual's Lake account. All advanced water shall be returned to the account of Mutual at a later date, either by a credit of return flows or purchase of in-lieu water. The status of this agreement is currently under review.

WASTEWATER RECLAMATION

Sewage in the City of Big Bear Lake is pumped to the Big Bear Area Wastewater Agency (BBARWA) plant in Baldwin Lake, which has a current organic treatment capacity of 3.26 million gallons per day (MGD), with a hydraulic capacity of 9.2 MGD. The plant was designed to accommodate the anticipated future growth in the area and has adequate capacity to serve the area.

Current average daily wastewater generation for the City of Big Bear Lake is approximately 1.4 MGD and the maximum wastewater generation is approximately 3.1 MGD (City Public Works Department, 1996). Some water is being reclaimed to water agricultural crops in the Lucerne Valley, but no extensive programs are currently in place. The Department of Water and Power is considering water reclamation as part of its long-term plans for the provision of water.

WATER CONSERVATION

The Department of Water and Power has had a mandatory water conservation regulation in effect since 1989. It requires the following: limited washing of paved surfaces with no runoff of water onto adjacent streets or properties; no landscape watering except between the hours of 4 p.m. and 10 a.m.; auto washing is to be done with an automatic shutoff nozzle; and all leaks must be fixed immediately.

In addition to domestic water conservation, it is important that the sources of water to the lake be enhanced and preserved. To this end, Rathbun Creek is currently the subject of a watershed restoration and management plan being prepared by the East Valley Resource Conservation District in conjunction with the City of Big Bear Lake, Soil Conservation Service, San Bernardino County Flood Control District, and Big Bear Municipal Water District. This Watershed Restoration Project will involve managing the riparian (shoreline) habitat of Rathbun Creek, possibly including the thinning and removal of willows from the Creek to keep water within the existing channel as much as possible in an effort to prevent additional erosion and sediment transport to Big Bear Lake[13].

Prior to 1992, only the Village sub-area had experienced overdraft (approximately 92± acre-feet per year from 1982 through 1991)[14]. There are currently no subareas in an overdraft condition.

WATER INFRASTRUCTURE

The Department of Water and Power provides domestic water to its service area via a system ranging from 2" to 12" mainlines, with 8" being the predominant size. The DWP has an ongoing system rehabilitation program that replaces the old, undersized pipelines (2" - 6") with new 8" - 12" PVC class 150 pipeline. The new pipeline provides domestic flow as well as fire flow, meeting the City Fire Department's requirements. Domestic water is extracted from the Rathbun and Division Subareas for the City.

On February 15, 1989, the State Department of Health Services issued a "Cease and Desist" order to the SoCal Water Company (acquired by the City in June 1989) to cease hooking up any more water connections. The order alleged an inadequate water supply and that additional water hookups would jeopardize the safety of all other existing structures. The purpose for acquisition of the SoCal Water Company was to reinvest income to upgrade facilities, including water transmission lines, and to add new water sources. City engineers projected that the water system was losing approximately 40 percent of its water through old and leaking transmission lines. Inadequate fire flow and fire hydrants, as well as deteriorated system components were also a problem. In January 1991, the water connection ban was lifted because the City was able to meet State standards for peak day water service delivery. This was a result of DWP successfully drilling additional wells[15].

13

Ibid., p.5.9.-8

14

Geoscience Support Services Inc. Re-Evaluation of Maximum Perennial Yield Big Bear Ground Water Basins. June, 1992. Page 23.

15

Ibid., p.5.5.1-1

The Department of Water and Power has five state-licensed systems. The Big Bear Lake/Moonridge water system serves the City of Big Bear Lake/Moonridge area, although it is connected to the Sugarloaf/Erwin Lake system and water can be rerouted if needed. The system serves approximately 4,480 acres with 6.0 million gallon (MG) of storage and 4,454 gallons per minute (GPM) of low flow pumping capability from supply wells. The following summarizes existing and projected conditions within the Big Bear Lake/Moonridge water system service boundary, and includes the Sugarloaf and Erwin Lake subareas:

	Year 1997	**Year 2022**
Number of Connections	12,741	14,128
Maximum Day Demand (MDD)	3,274 GPM	3,808 GPM
Required Storage	6.91 MG	7.72 MG

Design criteria for this area is 370 gallons per day (GPD) per connection for maximum day demand (MDD).

National Pollutant Discharge Elimination System (NPDES)

The NPDES implements the federal Clean Water Act and was adopted in 1990. It requires the development, adoption and implementation of plans and programs for storm water management, which must, among other things, "...effectively" prohibit non-storm water discharge into the storm drain" and "require controls to reduce the discharge of pollutants from storm water systems to waters of the United States to the Maximum Extent Practical." The legislation also makes the implementation of pollutant control measures exempt from CEQA.

One of the primary strategies to comply with the provisions of NPDES is the use of on-site storm water retention or detention basins within any new development of one acre or larger. These facilities may in some instances include artificial wetlands that use this biologically active zone to break down potential pollutants before they can contaminate surface runoff or reach the water table through percolation. These intercept structures will also be important in capturing sand and sediment before it is discharged into drainage facilities.

FUTURE DIRECTIONS

The wise use and conservation of water resources will be a continuing central theme of community development planning in Southern California. Water resources have a significant influence on land use allocations and intensity, and have an effect on a variety of other General Plan topics. These include flooding and hydrology, public utilities, fire protection, emergency preparedness, health and safety, community design, and economic development. The City has adequate water supply for the next 20-40 years. The community's ongoing concern regarding adequate long-term water supplies

has been addressed in this Element, since long-term growth cannot be sustained without this valuable resource.

Groundwater resource sub-basins do not respect jurisdictional lines and the threat of pollution or contamination of groundwater must be viewed on a regional as well as a local level. Effective future storm water management will also help protect groundwater and preserve capacity in storm water facilities. Protection of our major mountain watersheds will also assure preservation of a viable long-term source of natural groundwater recharge to the City and the larger subbasin.

WATER RESOURCES
GOALS, POLICIES AND PROGRAMS

GOAL ER 3

A dependable long-term supply of clean and healthful domestic water to meet the needs of all segments of the community.

Policy ER 3.1
The City shall provide direction and guidelines for the development of onsite storm water retention facilities consistent with local and regional drainage plans, community design standards and the requirements of the Flooding and Hydrology Element.

Program ER 3.1.1
Enforce regulations and guidelines and update them as needed to meet the specific needs in the planning area to manage storm water flows, which may include requirements for on-site detention or retention, and which implement the NPDES program, enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.
Responsible Agency: Public Works Division, Planning Division, City Engineer, Department of Water and Power
Schedule: Ongoing

Policy ER 3.2
Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and cooperate with other appropriate agencies to assure appropriate mitigation.

Program ER 3.2.1
Monitor changes in state and federal guidelines and aggressively pursue enforcement to ensure mitigation of groundwater contamination hazards from point and non-point pollutants.
Responsible Agency: Planning, Engineering, and Public Works Divisions, Fire Department, Department of Water and Power
Schedule: 1998

Policy ER 3.3
Ensure the long term balance of water supplies and growth through coordination of land use planning with infrastructure development.

Program ER 3.3.1
Ensure coordination of long range goals and objectives within and between City plans and programs, including the General Plan, Capital Improvement Program, Water Master Plan and others as appropriate.

Responsible Agency: Planning Division, Engineering Division, Department of Water and Power
Schedule: Ongoing

Program 3.3.2
Ensure that the water distribution system is planned and constructed to adequately serve existing and planned development, through the development review process.
Responsible Agency: Planning Division, City Engineer, Public Works Division, Department of Water and Power
Schedule: Ongoing

Program 3.3.3
Participate with and encourage the appropriate local water agencies to investigate all potential alternatives for the Valley-wide conjunctive use of water.
Responsible Agency: Department of Water and Power
Schedule: Ongoing

GOAL ER 4

An informed public that respects the City's finite water resource and maximizes protection and conservation efforts so that long-term growth in the community is sustainable.

Policy ER 4.1
Encourage the use of low water-consuming, drought-tolerant landscape plantings as a means of reducing water demand, and strengthen education/public relations programs to inform residents of the full range of water-saving techniques available.

Program ER 4.1.1
Encourage the use of indigenous and/or appropriate drought-resistant planting materials and require efficient irrigation systems on new development projects.
Responsible Agency: Planning Division or reviewing authority
Schedule: Continuous

Program ER 4.1.2
Continue to develop educational materials and programs that encourage and facilitate water conservation throughout the community.
Responsible Agency: Planning Division, Department of Water and Power
Schedule: Continuous

Policy ER 4.2

The City shall encourage and facilitate the use of water conserving appliances and fixtures in all existing development, and require it in new development.

Program ER 4.2.1
The City shall provide information on the use of low-flush toilets, water conserving appliances and low-flow showerheads and faucets for existing development, and shall require the application of water conserving technologies in conformance with applicable state laws, for new development.
Responsible Agency: Building and Safety Division, Department of Water and Power
Schedule: Continuous

Program ER 4.2.2
Encourage the availability in local shops of low-flush toilets, water conserving appliances, and low-flow shower heads and faucets to facilitate their installation by private parties.
Responsible Agency: Department of Water and Power
Schedule: Immediately upon adoption; continuous

GOAL ER 5

Comprehensive and effective watershed management to protect the water quality of Big Bear Lake.

Policy ER 5.1
The City shall encourage the enforcement of all federal, State, and regional regulations and enforce local regulations regarding the preservation and enhancement of water quality as it relates to the Lake's watershed, and water quality within the Lake itself.

Program ER 5.1.1
The City shall maintain both formal and informal cooperative review and consultation programs with the Municipal Water District, County Flood Control, the US Forest Service and other affected agencies in coordinating water quality planning in multi-jurisdictional watersheds.
Responsible Agency: City Engineer, Planning Division, Department of Water and Power
Schedule: Ongoing

Program ER 5.1.2
Require that all new commercial developments proposing to include enclosures for kept animals on property traversed by a water course such as a drainage way, stream or a wetland containing surface water, shall maintain a distance of no less than forty (40) feet between the animal enclosure and the water course or wetlands. For this program, the term "enclosure" includes but is not limited to a barn, stable, pasture, corral or other similar enclosure. Whatever barrier is utilized must not prohibit wildlife from using the water course or wetland.
Responsible Agency: Planning Division, Code Compliance
Schedule: Immediately upon adoption; continuous

Program ER 5.1.3
Site development practices which reduce erosion, promote rapid revegetation and reduce the amount of sediment leaving a construction site shall be adopted and enforced, to protect drainage ways and Lake resources.
Responsible Agency: Building and Safety Division, Code Compliance
Schedule: Adoption FY 1999-2000; enforcement ongoing

Program ER 5.1.4
In conjunction with other appropriate agencies, participate in developing and implementing a public information program regarding the appropriate use of herbicides and fertilizers to limit pollution of surface waters.
Responsible Agency: Planning Division, Department of Water and Power
Schedule: Immediately upon adoption; continuous

Program ER 5.1.5
Develop and implement a public information program for residents and the building trades which details erosion control and construction management practices to protect the watershed.
Responsible Agency: Building and Safety Division, Engineering Division
Schedule: Ongoing through development review and grading inspection procedures

CHAPTER 4: AIR QUALITY

PURPOSE

The purpose of the Air Quality Chapter of the Environmental Resources Element is to coordinate the planning of land use, circulation, housing and other City policies with their potential effects on air quality. It is the intent of this chapter and air quality planning in the region and locally to meet ambient air standards set by the Federal Environmental Protection Agency (EPA) and the California Air Resources Board (CARB).

BACKGROUND

One of the most essential issues associated with public health and safety is community air quality. The Air Quality Chapter is directly related to the type and intensity of land uses established in the Land Use Element, and the number, length and timing of traffic trips established in the Circulation Element. It is also related to economic development, because it addresses air quality and other valuable natural resources important to the local economy. This Chapter is also related to the amount and rate of housing development established in the Land Use and Housing Elements, and to the amount of open space planned for preservation in the Open Space, Parks and Recreation Element.

The issues addressed in the Air Quality Chapter are a part of those set forth in the California Government Code, Section 65302(b), where within the requirements set forth for the Circulation Element, the Government Code conditions that air quality trends and existing air quality levels be analyzed. In addition, the California Clean Air Act (Assembly Bill 2595), necessitates the development of air quality policies and programs which will protect and preserve the environment and general public from harmful air pollutants.

State Assembly Bill 2595 was enacted by the Legislature in 1988, and became known as the California Clean Air Act. The purpose of the Act was to assure that the future health and welfare of the people of the State of California and the State's environment and economy are protected, regardless of action or direction from the federal government. State Implementation Plans are designed to meet ambient air quality standards by the deadlines specified in the Federal Clean Air Act (CAA) and emission reduction targets of the California Clean Air Act (CCAA). These Acts base the extent of required emission reductions and the length of time to attain standards on the severity of a District's pollution.

Responsibility for air quality management in the State is also the responsibility of the California Air Resources Board (CARB), which has taken a committed approach to expeditious implementation of the Act. The CARB has been entrusted with an overseer role, to advise and evaluate local air pollution control agency and District efforts to comply with CCAA requirements.

The Big Bear Valley and the City of Big Bear Lake are located within the portion of the South Coast Air Basin (SCAB), which is regulated by the South Coast Air Quality Management District (SCAQMD). The District is responsible for regional planning affecting a variety of areas, including air quality. The District has identified two areas of air quality degradation having to do with ozone (0_3) and micron-sized particulate matter. Associated issues, including land development and traffic generation, are also associated with the District's coordinated air quality management efforts.

The regional Air Quality Management Plan, a multi-prong, multi-tier effort to regulate pollutant emissions from a wide range of sources, is also the responsibility of the District. The Plan's implementation affects City and Southern California Association of Governments (SCAG) regulatory roles, and is also meant to result in lowering the production of ozone/photochemical smog, which is transported into the Valley.

Climate and Air Quality

The City of Big Bear Lake, in relation to other areas in Southern California, essentially has good air quality. In the past few decades noticeable deterioration of air quality has occurred due to increased development and population growth, traffic, construction activity and various site disturbances. It is apparent that although air pollution is emitted from various sources in the Big Bear Valley, substantial degradation of air quality may be attributed primarily to sources outside of the Valley.

The Big Bear Valley is currently impacted by significant air pollution levels caused by the transport of pollutants from coastal air basins to the west, primarily ozone, and by primarily locally generated PM_{10}. The Valley offers approximately 300 days/year of clear skies and sunshine, however, it is susceptible to air inversions, which trap a layer of stagnant air near the ground where it can be further loaded with pollutants. These inversions create haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks and automobiles, furnaces and other sources.

POLLUTANTS

Air pollutants are generally classified in two categories, primary and secondary. Primary pollutants are those which are a direct consequence of energy production and utilization, while secondary pollutants are those which undergo chemical changes after emission. Primary pollutants typically affect only local areas, and do not undergo chemical modification or further dispersion. Secondary pollutants, on the other hand, do disperse and undergo chemical changes under conditions of high ambient temperatures and high rates of solar insolation. Primary sources and their pollutants are a direct consequence of the combustion of petroleum and other fuels resulting in the production of oxides of carbon, sulphur, nitrogen, and a number of reactive hydrocarbons and suspended particulates. Principal secondary pollutants are termed oxidants and include ozone (O_3), peroxynitrates, nitrogen dioxide (NO_2), and chemical aerosols.

Sensitive Receptors

Sensitive receptors include hospitals and nursing homes, schools and parks. The potentially serious detrimental effects caused by even the most common pollutants is of widespread concern. Ozone, particulates, carbon monoxide and other pollutants pose a very real threat to health and property in the Big Bear Valley. The two principal pollutants of concern are Ozone and PM_{10}. Following is a brief summary of the primary criteria pollutants that can be found in the Big Bear area.

Ozone (O_3)

Ozone is most commonly associated with smog, and is a pungent, colorless, highly reactive gas which is the main component of photochemical smog. This is a daily occurrence that commonly takes place from the pollution emitted primarily by mobile sources. The potential impact ozone can have on human health is significant, as ozone molecules react with sensitive lung tissues, irritating and inflaming the lungs, compromising the body's ability to fight respiratory infections. Ozone can also cause extensive damage to vegetation and has been associated with major damage to forests in the west and elsewhere throughout the world. The majority of smog experienced in the Big Bear Lake area results from the transport of pollutants from Los Angeles, Riverside and San Bernardino Counties.

Particulate Matter (PM_{10})

Small and suspended particles, both solid and liquid, such as dust, sand, metallic and mineral particles, road-surfacing materials, pollen, smoke, fumes and aerosols are generally referred to as particulate matter. These various particles are categorized by "settling" characteristics, and those which are the size of 10 microns or smaller are referred to as PM_{10}. PM_{10} particles can cause serious health problems, as they can pass through the lung's filtering system, lodge deep in the lung's tissues, and directly irritate these tissues.

The health effects associated with PM_{10} are more widespread than previously thought, according to recent research and analysis, and the Big Bear Valley has been designated as a "non-attainment area" for meeting federal PM_{10} standards. Moreover, other large areas of California have also been added to this category of impact. And while federal and state regulations have heretofore focused on particles of 10 microns or smaller, significant health concerns are now focusing further on the health effects of particles of 2.5 microns.

Other Pollutants

Nitric Oxide (NO) and nitrogen dioxide (NO_2), commonly referred to as NOx, are the two most significant oxides of nitrogen for air pollution. NOx is formed as a byproduct of combustion. NOx levels may be imported from air basins to the west, or may increase locally with inversion layers. Carbon Monoxide (CO) is a colorless, odorless, toxic gas which is generally produced by the incomplete combustion of carbon containing fuels. Carbon Monoxide passes through the lungs

directly into the blood stream, binding with hemoproteins and reducing the amount of oxygen reaching the vital organs such as the heart, brain and tissues. Levels of concern are generally found along heavily traveled roadways during periods of limited air movement.

Other pollutants generated in the Valley include those generated by automobiles, trucks, watercraft, and the burning of natural gas, propane, wood and other fossil fuels for space and process heat. In the City and in the Valley as a whole, wood-burning stoves can significantly contribute to the degradation of air quality during winter months. As the level of pollutant-generating activities increase in the Valley, the quality of our air will be affected and degraded.

Of all of these pollutants, Ozone and PM_{10} are the most prevalent in the Big Bear area. By integrating SCAG and SCAQMD efforts in the development of air quality management plans, the City assures a more efficient regulation, monitoring and response appropriate to local meteorological conditions.

AIR QUALITY MONITORING STATION DATA

The National Oceanic and Atmospheric Administration, and more recently the South Coast Air Quality Management District, have operated a regional air quality monitor station at Crestline in the central San Bernardino Mountains. Table ER-3 illustrates air quality data collected at the Central San Bernardino/Crestline Monitoring Station, the nearest station with similar climatic and topography conditions as the City (please note that Particulates TSP, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide are not monitored at the station, and are therefore not included in the table). The station is located approximately twenty-one miles west of the City of Big Bear Lake.

Table ER-2
Air Quality Data Central San Bernardino Mountains/Crestline Monitoring Station

Chemical Ozone	1993	1994	1995	1996	1997
Maximum Concentration, parts per million (ppm) 1 hour # of	0.24	0.27	0.25	0.23	0.21
days exceeding: Federal standard(>0.12 ppm 1 hour) # of	58	107	65	62	29
Days exceeding: California standard (>0.9 ppm 1 hour)	144	147	113	115	92
Suspended Particulates (PM10)					
Number of Samples	50	60	59	60	53
Maximum 24 hour concentration μgm-3	73	67	53	45	49
No. (% of samples exceeding: Federal standard (>150 μgm-3)	8	0	0	0	0
No. (%) of samples exceeding: Calif. standard (>50 μgm-3)	2	3	0	0	0
Annual Geometric Mean Concentration μgm-3	31.3*	26.1*	20.4*	23.9*	23.9*
Annual Arithmetic Mean Concentration μgm-3	25.5*	22.4*	17.6*	19.8*	20.8*

*Less than 12 full months of data. May not be representative.
Source: South Coast Air Quality Management District (SCAQMD)

STATE AND FEDERAL STANDARDS

State and federal ambient air quality standards are set at levels believed adequate to protect the health of the most sensitive population groups, particularly the elderly, children and people with respiratory diseases. State standards are more restrictive than federal. Table ER-4 provides a breakdown of the pollutants monitored in the South Coast Air Quality Management District and the applicable state and federal standard.

Table ER-3
State and Federal Ambient Air Quality Standards

Pollutant	State Standards Time/Averaging Conc.	Federal Standards Time/Average Conc.
Ozone	1 Hour/.09ppm	1 Hour/.12ppm
Carbon Monoxide	1 Hour/20ppm 8 Hour Ave./9ppm	1 Hour/35ppm 8 Hour Ave./9ppm
Nitrogen Dioxide	1 Hour/.25ppm	Annual Arith. Mean: /.053ppm
Sulfur Dioxide	1 Hour/.25ppm 24 Hours/.04ppm	Annual Arith. Mean: 80 ug/m3
Particulate Matter	Any Sample:50ug/m3 Annual Geo. Mean:30ug/m3	24 Hour:150ug/m3 Annual Arith. Mean:50ug/m3

Ppm=parts per million
Source: SCAQMD

With the greater attention being dedicated to particulate matter, monitoring for PM_{10} has been expanded both through temporary research and field data collection stations as well as the siting of permanent wind speed and pollutant measuring equipment.

FUTURE DIRECTIONS

Good air quality is a major factor in keeping Big Bear Lake an attractive and healthy place to live. In addition, the maintenance of clear skies and a pollution-free environment is a key component in the local economy, since Big Bear Lake's attraction as a tourist destination and resort area is based to a large degree in its pristine mountain air and scenery. Since most of the air pollution in the Big Bear Valley is imported from the San Bernardino Valley area, and the authority for regulating air quality rests with other agencies, the City's role in achieving air quality which meets state and federal standards is somewhat limited. However, the City will take all reasonable measures to help reduce pollution from local sources.

AIR QUALITY
GOALS, POLICIES AND PROGRAMS

GOAL ER 6

Good regional air quality preserved and enhanced for the protection of the health and welfare of the community as a whole.

Policy ER 6.1
The City shall investigate the feasibility of local monitoring and management of major pollutants affecting the City and region, with particular focus on ozone and PM_{10}, and shall cooperate with SCAQMD as needed to ensure adequate monitoring.

Program ER 6.1.1
Assist local residents and businesses to comply with SCAQMD permits and requirements or to seek exemptions as appropriate, while maintaining the City's commitment to preserving air quality.
Responsible Agency: Planning Division
Schedule: Ongoing as needed

Policy ER 6.2
Through the land use planning and environmental review processes, limit pollution from stationary sources and ensure mitigation of any impacts from these sources to the community.

Program ER 6.2.1
The General Plan Land Use Element shall be developed and maintained to locate air pollution point sources, such as manufacturing facilities, at an appropriate distance from residential areas and other sensitive receptors.
Responsible Agency: Planning Division, Planning Commission, City Council.
Schedule: 1998 and ongoing

Program ER 6.2.2
The City shall conduct an initial study pursuant to CEQA and, as appropriate, require detailed air quality analysis for all applications which have the potential to adversely affect air quality. All development proposals brought before the City will be reviewed for potential adverse effects on air quality and will be required to mitigate any significant impacts in accordance with CEQA.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Program ER 6.2.3
Through the CEQA review process, the City shall impose mitigation measures, including the use of temporary irrigation or site stabilization, as well as other measures which will effectively limit fugitive dust emissions resulting from construction or other site disturbance.
Responsible Agency: Planning Division, Public Works Division
Schedule: Ongoing

Program ER 6.2.4
The City shall adopt standards to limit pollution in the form of particulate matter emitted from combustion, which may include but not be limited to, use of wood-burning stoves and commercial outdoor barbecues.
Responsible Agency: Planning Division to draft standards in Development Code update. Building and Safety and Code Compliance Divisions to implement.
Schedule: Adoption of standards 1999. Enforcement ongoing

Policy ER 6.3
The City shall promote the development and use of alternative modes of travel to reduce dependence on motor vehicles.

Program ER 6.3.1
The City shall promote the development of community-wide multi-use trails and bike paths, dedicated bike lanes and other desirable alternatives to motor vehicle traffic, and encourage the placement of bicycle facilities such as bicycle racks and bicycle lockers at appropriate locations.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: Prepare and adopt Master Plan for Trails FY 1999-2000; implementation ongoing

Program ER 6.3.2
The City shall encourage the regional transit authority to maintain comprehensive public transit routes throughout the Valley.
Responsible Agency: Planning Division
Schedule: Ongoing

Program ER 6.3.3
As future demand warrants, the City shall promote and support the development of a park-and-ride program or facility to decrease existing and future traffic levels.
Responsible Agency: Public Works Division
Schedule: As warranted

Program ER 6.3.4
The City shall encourage use of shuttle services for special events to limit traffic congestion during these times.
Responsible Agency: Planning Division
Schedule: Ongoing through review of special event permits

Policy ER 6.4
The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling whenever practical.

Program ER 6.4.1
The City shall consider the use of alternative and/or renewable energy sources in City vehicles to the extent practical.
Responsible Agency: City Manager's Office, Public Works Division
Schedule: Continuous

Program ER 6.4.2
When warranted by technology and need, the City shall encourage use of electric vehicles by facilitating location of charging stations in the City.
Responsible Agency: Planning Division
Schedule: As needed

CHAPTER 5: ENERGY AND MINERAL RESOURCES

PURPOSE

The purpose of this chapter is to address the need for thoughtful use and management of energy and mineral resources, diverse development and conservation. Minerals and most energy resources are finite and limited. The household demand for energy resources in Big Bear Lake and Bear Valley is relatively high, and escalating energy prices have placed serious burdens on residents and businesses alike. This chapter sets forth goals, policies and programs that respond to the community's dependency on these limited resources. Resource production, transmission and use issues are also set forth in the element, as are the major opportunities faced by the City and regional governments for more local control of these resources.

Current (1997) energy usage, mineral resource location and identification are quantified in this element. Mineral resource zones and existing energy resources and consumption patterns are defined and established in an effort to preserve and expand these important resources and determine how they can be most effectively managed. Policies and programs serve as tools to ensure the preservation and management of these resources and discourage premature or inappropriate conversion of mineral and/or energy resources zones to incompatible uses.

BACKGROUND

The Energy and Mineral Resources Chapter is directly related to several other portions of the General Plan, including Land Use, Circulation, Air Quality, Housing, Economic Development, as well as other elements. A wide range of state and federal legislation and regulation are applicable to energy and mineral resource issues, including California Government Code Section 65560(b), which directs cities and counties to provide for the preservation of energy and mineral resource areas, as well as other resources. As discussed below, these requirements have direct application to the City and its Sphere of Influence, where important mineral and energy resources have already been identified and developed. Government Code Section 65302(d) requires that General Plans include elements that address issues of resource conservation, and sets forth the areas that may be addressed, including reclamation, prevention of resource degradation and preservation for long-term use.

The regulation of mineral resources is also extensively addressed in the Public Resources Code, including Sections 2762, 2763 and 2764. Government Code Section 65303 allows the local jurisdiction to add other resource conservation/management subjects that, in its opinion, relate to the physical development of the City.

The State Solar Rights Act and Solar Shade Control Act, meant to enhance opportunities for the use of solar energy, and Title 24 building standards, provided to reduce unnecessary energy use in new

or substantially remodeled construction, are some of the state regulations affecting mineral and energy resources.

Minerals are considered to be any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances, including iron, sand and gravel, limestone, coal and peat, but not including natural gas or petroleum. The importance of mineral deposits and their utilization is dependent upon their relative abundance and importance in commerce and industry. Deposits of rare or important industrial materials require careful consideration before their availability is precluded by urban development.

Energy resources are integral in residential, commercial and industrial land uses, and especially in transportation. Relatively high regional energy costs, a highly competitive economic environment, and substantial opportunities for conservation encourage the development and use of alternative energy resources. The overall quality of our air and the health of our ecosystems are dependent upon sensitive choices of energy production, use and conservation.

Located in an area with low mean temperatures in the winter of daytime highs in the fifties and nighttime lows in the teens and moderate mean temperatures in the summer with daytime highs in the eighties and nighttime lows in the fifties, Big Bear Lake and the Bear Valley have a substantial need for winter space heating and related natural gas energy demand. To a lesser extent, the City also consumes small quantities of natural gas for hot water for homes and businesses, to provide industrial process heat, and to prepare food. The influx of tourists during the winter season greatly increases the need for natural gas.

Energy Resource Consumption

Consumption of electricity and natural gas per capita or per household in the Big Bear Valley are estimates and vary significantly with use. However, the South Coast Air Quality Management District (SCAQMD), in cooperation with utilities, has developed a set of assumptions to define the general level of energy consumption on a use basis. Residential energy users, the City's largest consumer segment, on average utilize approximately 80,000 cubic feet of natural gas, and 5,626 kilowatt hours (KWH) per household per year.

With the minor exception of electrical energy being generated from nuclear and renewable resources, nonrenewable fossil fuels are depended upon for the generation of electricity and the heating of homes. Also important, the operation of vehicles is still essentially dependent upon nonrenewable resources. In addition to reducing the long-term availability of these important resources, the burning of fossil fuels is directly associated with the production of air pollutants, hazardous waste materials and global warming.

ELECTRIC POWER SERVICES

The availability of cost-competitive electrical power is essential to the community in attracting new business and industry. The cost of electricity can have a substantial impact on business, and its affordability through reasonable rates, load management and energy conservation incentives is essential to the continued growth of the Big Bear Lake business and industrial sectors. The influx of tourists creates a substantial increase in the need for electrical energy, especially during weekends and holidays. Electric power services are provided by Bear Valley Electric (BVE), the local electric company, a division of the Southern California Water Company. BVE is authorized to purchase its power on the open market and currently purchases all of its supplies from the Southern California Edison Company (SCE). Electricity is transmitted to the City primarily through high voltage lines and step-down transformers at substations located in the Valley. Currently, there is no power generation within the City. Bear Valley Electric (BVE) is currently the sole electric service provider in the City.

NATURAL GAS SERVICE

Natural gas is found in association with petroleum crude oil deposits and is transported throughout the country through high pressure transmission lines. It is generally considered a clean and efficient fuel, but nonetheless emits a wide range of air pollutants. On average, the typical household uses approximately 6,665 cubic feet of natural gas per dwelling unit per month. Gas service is available to commercial, industrial and residential users in the City, with costs varying with seasons and amount of use.

The General Plan study area is located within the service district of the Southwest Gas Corporation (SGC). SGC has by far the most sophisticated and detailed technical assistance and incentive program of all energy service providers serving the City. Service planners and technical expertise from SGC's various service divisions are available to assist in addressing a wide range of use issues, including land use master planning, service extension and use-specific technical consulting/problem-solving. A brief summary of the various services available from the Gas Company are provided below.

Gas Company Energy Management Programs

Southwest Gas Corporation is currently the nation's eighth largest natural gas utility, serving approximately 1.1 million residential, commercial and industrial customers, including those in the Big Bear area. SGC exercises commitment to responsive service, competitively priced fuel and comprehensive technical assistance. This dedication to service includes, but is not limited to, exploration of new energy technologies, energy surveys and rate analyses.

As a member of the Gas Research Institute, SGC has access to the latest technology concerning environmentally safe and energy-efficient application. This information often helps organizations lower product costs, increase operation efficiency and reduce the volume of harmful pollutants.

SGC will provide energy surveys to help commercial or industrial businesses become more energy-efficient. A survey may consist of an on-site evaluation of overall natural gas energy use efficiency. SGC will also assist commercial and industrial businesses in conducting a rate analysis to help determine all rate options including the most beneficial to each individual business.

LOCAL RENEWABLE ENERGY RESOURCES

Solar energy is the only substantial and important renewable energy resource in Big Bear Lake and Big Bear Valley.

Solar Energy

The costs of producing and installing solar photovoltaic systems, which involve the direct conversion of sunshine to electricity, have been dramatically reduced in recent years but these devices are still primarily used for special applications, including powering remote locations. Solar thermal systems have meanwhile been in use all over the world for many years and are widely applied in Southern California to provide domestic hot water and to heat swimming pools. Passive solar designs are also being used to provide natural lighting and space heating. Big Bear Lake is well situated to take advantage of the continued emergence and refinement of solar technologies, with intense solar insolation for both solar thermal and photovoltaic systems. These technologies are also expected to become integral to the emergence of a hydrogen fuel cycle, which could result in virtually pollution-free electric power and combustion fuel.

MINERAL RESOURCES

The importance of mineral deposits and their utilization is dependent upon their relative abundance and importance in commerce and industry. Deposits of rare or important industrial minerals require careful consideration before their availability is precluded by development. Mineral deposits that are common and readily available from nearby sources, for instance sand and gravel, pose less of a supply threat if their mining locale is precluded.

The nonrenewable character of mineral deposits requires their careful and efficient development to prevent unnecessary waste or exploitation. The excavation of mineral resources can also have significant environmental impacts that may only be marginally mitigated by surface mining reclamation plans. Evidence of mining, particularly surface mining in desert areas, can remain for centuries if not properly reclaimed through extensive importing of fill, grading, and replanting.

Locally Known Mineral Resources

There are three types of deposits that can be found near Big Bear Lake: (1) stream deposits; (2) floodplain and terrace deposits; and (3) alluvial fans.

Stream deposits (unit Qa) consist of easily mined sand and gravel deposited in present or former stream courses. They are desirable for aggregate because abrasion has removed weaker rocks which have been ground into fine particles and carried downstream, leaving the stronger minerals behind. The size of the gravel gradually decreases downstream, and a quarry site containing a desirable blend of particle sizes is commonly found. These deposits are generally free of excess silt and clay, and may be renewed by seasonal influxes of new material.

Floodplain and terrace deposits (unit Qo) may contain high-quality material similar to stream channel deposits. These materials were previously deposited when stream erosion and deposition were at a more vigorous level. These deposits may contain surface layers of silt and clay but are desirable for mining because they are located away from running or near-surface ground water.

An alluvial fan (units Qf and Qod) is formed where a stream emerges from a mountain front onto an adjacent valley or plain. A decrease in slope causes the stream to disperse sand and gravel into a system of intermittently active channels. The coarsest materials are deposited near the "head" of the fan and the finer materials near the "margins " of the fan. Deposits tend to be poorly sorted and may contain silty matrix or clay lenses.

There are relatively few mineral resources in and around Big Bear Lake; however, the resources have been identified by the U.S. Forest Service Management Plan for the Big Bear Basin. The majority of the area is made up of alluvium and alluvial fans containing mostly sand and gravel with admixed silt and clay. These minerals are generally found along stream courses.

In 1997, The State of California Department of Conservation, Division of Mines and Geology released a report identifying aggregate materials in the Big Bear Area Production-Consumption Region, which includes the City of Big Bear Lake and its Sphere of Influence. The primary goal of the study was to identify regionally significant mineral deposits in an effort to conserve and extract them, in order to meet anticipated aggregate production needs in the area.

Three mineral resource categories are applicable to the City and its Sphere of Influence:

MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.

MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

The mineral deposits that are of significant value are located in and around Sugarloaf, and deposits that have undetermined value are located in and around Van Duesen Canyon, Gold Mountain and Smarts Ranch.

Talus consisting largely of quartzite underlies the area south of Sugarloaf east of the existing City boundary. This material is classified in the Mineral Resource Zone (MRZ-2) with significant resources which has possible value if subjected to a crushing process.

All other resources identified in this report are located in Mineral Resource Zone (MRZ-3) indicating undetermined mineral resource significance. Marble outcrops can be found in Van Duesen Canyon north of the City. These outcrops have the potential for crushed stone. Talus consisting largely of quartzite has been quarried at a site near the north City boundary, and could be quarried at additional sites surrounding Gold Mountain northwest of the City boundary. A gravel pit that has been highly productive, but is currently inactive, is located near Smarts Ranch approximately ten miles northeast of the City boundary. This material is poorly bedded and very course.

FUTURE DIRECTIONS

Steadily increasing economic and environmental costs associated with energy production and use are forcing communities and countries to develop new energy policies and programs. The various constraints that have emerged can also be viewed as opportunities for economic development and environmental enhancement. Lowering or shifting demand will help to control costs and require power generators to operate more efficiently and price their product more competitively. Encouraging the development and use of alternative and renewable energy can also expand economic opportunity. The community has an important and meaningful role in encouraging the wise use of energy resources.

The City also has an important long-term role in helping assure the availability of important sand and gravel resources located in the Sphere of Influence. Future resource needs must be kept in mind when land use or development planning has the potential to adversely affect these important mineral resources. However, it is not the City's intent to allow mining within the urbanized or developing areas of the community.

ENERGY AND MINERAL RESOURCES GOAL, POLICIES AND PROGRAMS

GOAL ER 7

Conservation and prudent management of energy sources and mineral deposits, assuring the long-term viability of limited and nonrenewable resources.

Policy ER 7.1
Promote energy conservation in all areas of community development, including transportation, development planning, public and private sector office construction and operation, as well as in the full range of residential, commercial and industrial projects.

Program ER 7.1.1
Encourage the use of passive solar energy for natural heating through design, construction and landscaping techniques.
Responsible Agency: Planning and Building and Safety Divisions; reviewing authority for development projects.
Schedule: Ongoing

Program ER 7.1.2
Plan for and implement alternative transportation modes, such as bicycles, pedestrians and public transit in order to minimize energy consumption from private automobile use, through development of a master plan for trails and continued cooperation with the local transit provider.
Responsible Agency: Planning Division
Schedule: Plan preparation FY 1999-2000. Adoption and coordination ongoing

Program ER 7.1.3
Support and facilitate the integration of proven alternative energy systems into new development projects, where appropriate.
Responsible Agency: Planning Division, Building and Safety Division
Schedule: Continuous

Program ER 7.1.4
Encourage use of alternate fuel vehicles when technology makes their widespread use readily available, by seeking funding for support infrastructure as appropriate, and by modifying city regulations to accommodate their use, as needed.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: Based upon availability

Policy ER 7.2
If, in the future, any significant mineral resources are identified in the City which merit extraction, ensure that mining and processing activities can be carried out in a manner which minimizes disruption to adjacent land uses, regional infrastructure, and the environment.

Program ER 7.2.1
Adopt policies and standards to regulate mining activities, if such regulations are needed in the future.
Responsible Agency: Planning Division to draft regulations; Planning Commission and City Council to review and adopt; reviewing authority to implement the review of mining proposal
Schedule: As needed

Policy ER 7.3
Identify significant mineral resources within the planning area which have the potential to be excavated, and protect these areas for future extraction while minimizing potential land use conflicts between quarries and adjacent less intensive uses, if any are found to exist.

Program 7.3.1
On the land use map, ensure an adequate buffer area between mineral resource areas and adjacent residential uses.
Responsible Agency: Planning Division and reviewing authorities
Schedule: Ongoing

ENVIRONMENTAL HAZARDS ELEMENT

CHAPTER 1: **Geotechnical Hazards**

CHAPTER 2: **Flooding and Hydrology**

CHAPTER 3: **Hazardous and Toxic Materials**

CHAPTER 1: GEOTECHNICAL HAZARDS

PURPOSE

The purpose of the Geotechnical Hazards Chapter of the Environmental Hazards Element is to provide information, as well as goals, policies and programs to protect the general health, safety and welfare of the City's population from seismic and other geotechnical hazards, and to educate the community and its residents about seismic and related geologic hazards. The Chapter is also meant to satisfy the requirements of state law, including the Alquist-Priolo Earthquake Fault Zoning Act (amended). The Chapter and its supporting documentation are also intended to provide a regularly updated information database on geotechnical hazards affecting the region, which will serve as the basis for ongoing land use policies and decisions. Other General Plan elements that are directly or indirectly related to the Geotechnical Chapter include Land Use, Circulation, Housing, and Public Services and Facilities. The Emergency Preparedness Chapter of the Public Services Element of the General Plan is most directly related to the seismic safety issues embodied in this Chapter.

BACKGROUND

The City of Big Bear Lake and the General Plan study area are located in the Transverse Ranges physiographic province of southern California. This province is characterized by an east-west grain caused by compression at the "Big Bend" of the Southern San Andreas fault. The name originates from the result of structures within the block being transverse (east-west) to the main plate-boundary formation related to the San Andreas fault. The Transverse Range structural block is composed of sub-blocks consisting of the Santa Ynez, the San Gabriel, the Banning, the San Bernardino, and the Pinto Mountains sub-blocks. The major faults of these sub-blocks are left-lateral and/or reverse faults.

The San Bernardino Mountains have been uplifted quite recently in geologic time and appear to continue to shift today. As the range uplifted, very rugged and steep topography developed along the perimeter of the old granitic terrain that once may have been part of the southeastern Mojave Desert. During uplift, deep narrow canyons began to work headward and downward into the elevated peneplained (plains shaped by erosion) uplands. The City of Big Bear Lake is located in the center of the San Bernardino Mountains, which are bounded on their west side by the San Andreas fault. In the late Quaternary, forces associated with plate motions at the boundary of the North American and Pacific plates, and subsequent crustal adjustments, have elevated the mountains to their present elevations of between 6,000 and 11,500 feet above mean sea level.

Movement along these two tectonic plates is responsible for the earthquakes that occur in Southern California, with about 70 percent of this movement being accommodated by the San Andreas Fault Zone.

Applicable Legislation

Requirements for the development of an element addressing seismic safety issues are found in both the California Government Code and Public Resources Code. Government Code Section 65302(g) requires that the General Plan address the need to protect the community from unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, seiching, dam failure, subsidence and other known geologic hazards. In accordance with Government Code Section 65303, the City General Plan may also address other subjects related to the physical development of the community, as provided in other Elements of this Plan.

The most important piece of legislation related to this Element is the Alquist-Priolo Earthquake Fault Zoning Act, which is found in Public Resources Code Sections 2621 et. seq. The location of these study zones must be disclosed to the general public through the use of maps and other appropriate materials (Title 14, California Administrative Code Section 3603 (b)).

Finally, Government Code section 8876 establishes a program by which the City and all other jurisdictions located within the most severe seismic zone shaking (Zone 4), as set forth in Chapter 2-23 of Part 2 of Title 24 of the Administrative Code, shall identify all potentially hazardous or substandard buildings and shall establish a program for the mitigation of these buildings' inadequacies.

Alquist-Priolo Earthquake Fault Zoning Act

Previously known as the Alquist-Priolo Special Studies Zone Act adopted in 1972, the Act's primary purpose is to mitigate the hazards associated with fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. Earthquake fault zones, which are sufficiently active and well defined, have been designated on maps prepared by the State Division of Mines and Geology. Study area boundaries range from 200 to 500 feet on either side of an active fault, depending on whether it is a minor or major fault. The Act defines active faults as those that have evidenced movement during the past 11,000 years (Holocene epoch).

There are currently no Alquist-Priolo (A-P) Zones for the City of Big Bear Lake. In accordance with the A-P Act, new faults are added as "Special Study Zones" that can be "well defined" and are determined to have ruptured within the past 11,000 years ("sufficiently active"). Recent photolineation studies in the region have helped identify potential fault structures. However, the mountainous region has few geologically young sediments to determine activity. It is, therefore, considered unlikely that mapped lineations would be incorporated into Special Studies Zones in the near future.

GEOTECHNICAL CONDITIONS IN THE BIG BEAR LAKE REGION

Located along one of the most active tectonic boundaries on the globe, the Big Bear area and Southern California region are susceptible to a wide range of hazards associated with geotechnical conditions. Recent studies indicate that far too few earthquakes have occurred in Southern California in the last 200 years to account for the rate of movement between the Pacific and North American

plates. The data suggest that the region will be subject to either numerous, moderate earthquakes (such as the Northridge quake) or a few large (magnitude 7.2 or larger) earthquakes. Therefore, the City and the region must factor in these geologic threats in the development of appropriate policies and programs.

Geologic Units, Basement Rocks, Alluvium and Sand

In addition to the tectonic forces acting on the Big Bear Lake area, geologic hazards and geotechnical constraints are also affected by the characteristics of the rocks and sediments that underlie the area.

The basement complex of the San Bernardino Mountain Range consists of Precambrian gneiss (approximately 1 million year-old foliated metamorphic rock composed of granite or some other crystalline rock) unevenly overlapped by shelf quartzite and carbonates. It includes a large batholith (a great mass of intruded igneous rock) exposed throughout the San Bernardino Mountains. This basement complex is considered to be geologically part of the Mojave crustal block and is presumed to have been part of the Mojave Desert during Tertiary and probably early Quaternary time (70,000 years ago to present time).

The City of Big Bear Lake is situated in Big Bear Valley, a bedrock-enclosed basin infilled with Quaternary sediments consisting of alluvial (stream-deposited), colluvial (sediment deposited at the base of steep slopes), and lacustrine (lake) sediments or deposits. Bedrock on the western side of the Valley is predominantly granitic rocks (quartz diorite, granodiorite and quartz monzonite) with minor monzonite and diorite at Delamar Mountain. A more detailed discussion of the engineering characteristics of these various geologic units can be found in the General Plan EIR and the geotechnical report found in the EIR appendices.

Measurements of the Seismic Hazards in Big Bear Lake

As discussed below, earthquakes are classified by their magnitude and by their intensity. The intensity of seismic ground shaking is a function of several factors, including the magnitude of the quake, distance from the epicenter, and the local geologic and topographic conditions. Analysis of the San Andreas Fault earthquake potential indicates that in a major seismic event the City generally lies within intensity zones VII through IX, as defined in the Modified Mercalli Intensity Scale (see below). This intensity range can result in considerable damage in specially designed structures, well-designed structures thrown out of plumb, and great damage can occur in substantial buildings with partial collapse. Buildings can also be shifted off their foundations, underground pipes broken, and the ground cracked markedly.

The largest or maximum credible earthquake a fault is capable of generating is used for community planning purposes. Maximum seismic design parameter values, including peak ground or bedrock acceleration, duration of strong ground shaking, and period of ground motion (frequency), are derived from maximum credible earthquakes to establish safety margins. These potential effects associated with local faults are discussed below.

Richter Scale

Faulting and ground rupture, or the breakage of bedrock and overlying sediments, along tectonic plate boundaries, and associated ground acceleration or motion, are the most significant potential geotechnical hazards affecting the General Plan study area. Earthquakes are typically defined by their magnitude as measured on the Richter Scale. Each whole number step in magnitude on the scale represents a tenfold increase in the amplitude of the waves on a seismogram and about a 31-fold increase in energy released. As an example, a 7.5 magnitude earthquake is 31 times more powerful than a 6.5 magnitude quake.

Seismic Intensity and the Modified Mercalli Intensity Scale

The Modified Mercalli Intensity Scale (MMI or MMIS) is a more useful measure of the damage potential of earthquakes, and is based upon people's reactions to a quake, and observed damage to structures and other physical effects. There are twelve levels of intensity in this scale, ranging from I (tremor not felt) to XII (damage is nearly total). The effects of a quake on masonry and other buildings are an important part of characterizing the intensity using this scale.

MAJOR ACTIVE FAULTS AND THEIR POTENTIAL EFFECTS IN THE BIG BEAR LAKE AREA

Earthquakes can cause substantial property damage, the loss of public services and facilities and loss of life. Strong shaking from an earthquake can result in landslides, ground lurching, structural damage or destruction, and liquefaction. Strong shaking can also set in motion other hazards, including fires, disruption of essential facilities and systems (water, sewer, gas, electric, transportation, communications, irrigation and drainage systems), releases of hazardous materials, and flood inundation as a result of dam or water tank failure.

Ground shaking during an earthquake is the most significant seismic hazard that will impact the Big Bear Lake planning area. Critical parameters include distance between the fault and various points in the City, the maximum credible earthquake each fault is capable of generating, the intensity of ground shaking expressed as a fraction of the acceleration of gravity (g), and the MMI seismic intensity values that have been calculated for the City. In general, peak ground accelerations and seismic intensity values decrease with increasing distance from the causative fault. However, local site conditions, such as the top of ridges, may amplify the seismic waves generated by an earthquake, resulting in higher accelerations than those discussed below.

An effective seismic hazard reduction program, therefore, should include the identification and mapping of geologic and seismic hazards, the enforcement of building and fire codes, and the expedient retrofitting and rehabilitation of weak structures. Programs should also be developed to help City residents to provide for themselves and their families in the aftermath of an earthquake.

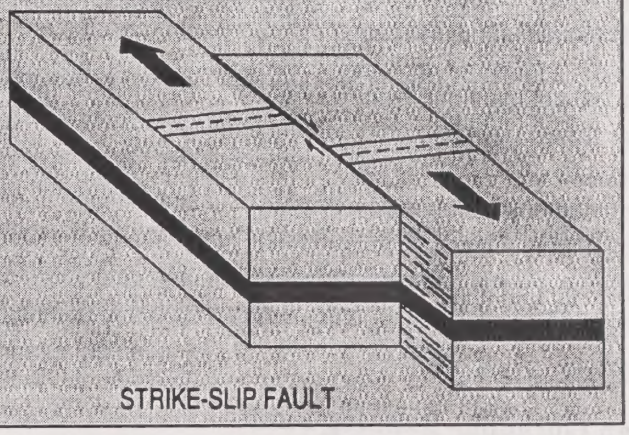
San Andreas Fault Zone

The San Andreas Fault Zone is the principal boundary between the Pacific and North American plates and locally has been divided into several segments. The San Bernardino Mountains segment is a structurally complex zone because in this area the San Andreas fault makes a left-step, and bends to trend in a more westerly direction. Compression associated with this left step is expressed as a zone of reverse, lateral and oblique-slip deformation that is accommodated by several sub-parallel fault strands. The most important of these are the Mission Creek, San Gorgonio Pass, and Banning faults. It is unclear how slip along the San Andreas fault is transferred through the San Gorgonio Pass, but research suggests that when the San Andreas ruptures in this area, slip can occur simultaneously along the San Gorgonio and Banning faults.

Several estimates of slip rate obtained independently indicate that the San Bernardino Mountains segment has a slip rate of 24 ± 5 mm/year, with an average recurrence interval of 146 years. Paleoseismic studies at Wrightwood indicate that there have been six surface-rupturing earthquakes on this segment since 1192, with the most recent five events occurring, on average, every 106 years. The most recent surface-rupturing earthquake on this segment is thought to have occurred in 1812, 183 years ago (1997). It is estimated that this segment has a 28 percent probability of rupturing in the time period between 1994 and 2024. The San Bernardino Mountains segment is the most geometrically complex part of the southern San Andreas fault, which also suggests that coseismic deformation will also be complex. An earthquake on the San Bernardino segment of the San Andreas fault is expected to result in a peak ground acceleration (PGA) of 0.273 g and a MMI of IX for the City of Big Bear Lake.

The movement along a **strike-slip fault** is approximately parallel to the strike of the fault, meaning the rocks move past each other horizontally.

The San Andreas is a strike-slip fault that has displaced rocks hundreds of miles. As a result of horizontal movement along the fault, rocks of vastly different age and composition have been placed side by side. The San Andreas fault is a fault zone rather than a single fault, and movement may occur along any of the many fault surfaces in the zone. The surface effects of the San Andreas fault zone can be observed for over 600 miles (1,000 km).



The southernmost portion of the San Andreas Fault Zone capable of impacting the City is the Coachella Valley segment. No earthquakes have been recorded on this segment in historic times, and ongoing analysis suggests that the last surface rupture on this segment occurred around 1680. Studies at Indio indicate that prior to 1680, earthquakes on this fault occurred on an average interval of 220 years. There is evidence of simultaneous rupture along the San Bernardino and Coachella segments around 1680 and 1450. The Coachella segment has experienced creep (slow slippage) at the rate of

about 2-4 mm/year, but has a long-term slip rate of about 25 ±5 mm/year. This segment is estimated to have a 22 percent probability of rupturing in the period between 1994 and 2024. A Magnitude 8.0 earthquake on this segment is estimated to be capable of generating peak ground accelerations of 0.199 g and MMI of VII at Big Bear Lake.

Helendale Fault

The Helendale fault is one of the northwest-trending right-lateral strike-slip faults which collectively appear to be accommodating between 9 percent and 23 percent of the motion between the North American and Pacific Plates. These faults are referred to as the Eastern California or Mojave shear zone. An earthquake of magnitude 7.3 on this fault located about 6 miles from Big Bear Lake is estimated capable of generating a peak horizontal ground acceleration of 0.328 g and MMI of IX. Trenching of the Helendale fault indicates that the fault has ruptured on three occasions during the last 16,000 years, indicating a recurrence interval of 5,000-7,000 years. The Helendale fault appears to cut through and offset the North Frontal fault zone.

North Frontal Fault Zone

The North Frontal fault is a partially blind south-dipping thrust with a slip rate of 0.5 mm/year. Thrusting along this fault system accounts for about 1 mm/year uplift of the San Bernardino Mountains. This fault is located 7 miles from Big Bear Lake and is believed capable of generating an earthquake of magnitude 7.7 with a peak horizontal ground acceleration of 0.352 g and MMI of IX. The North Frontal fault zone interacts with several other faults at a variety of intersections. It appears to be offset right-laterally by the Helendale fault, and forms a complex junction with the Old Woman Springs fault.

Lenwood-Old Woman Fault

An earthquake of magnitude 7.3 on these segments is estimated capable of generating a peak horizontal ground acceleration of 0.144 g and MMI seismic intensity of VIII at Big Bear Lake. A slip rate of 0.8 mm/year is reported for the Lenwood segment. Trenching of the fault indicates three Holocene earthquakes 200-400, 5,000-6,000, and 8,300 years ago. Prior to the Landers earthquake, creep was recorded but not verified for the Lenwood segment. The Lenwood segment experienced triggered slip near its southeast end due to the Landers earthquake. The Old Woman Springs segment is the main trace in a complex system of faulting, interacting with both the North Frontal zone and the Lenwood fault.

San Gorgonio-Banning Fault

The San Gorgonio-Banning fault system is located 19 miles south of the City of Big Bear Lake. An earthquake of magnitude 7.5 on these segments is estimated capable of generating a peak horizontal ground acceleration of 0.159 g and MMI of VIII at Big Bear Lake. These faults represent a complex zone of faults formed where the San Andreas interacts with several other faults, including the San Jacinto and Pinto Mountain faults. Complex motions on these segments include right-lateral strike-slip, oblique right-reverse, and thrust. These fault segments interact with the San Andreas fault

zone in the vicinity of San Gorgonio Pass, leading some researchers to propose that they may rupture concurrently with the San Andreas.

Johnson Valley Fault

The June, 1992 Magnitude 7.6 Landers Earthquake occurred on the Johnson Valley Fault and was strongly felt in the Big Bear Lake area. It is a northwest trending fault that, in conjunction with nearby parallel faults, is accommodating between 9 and 23 percent of the movement between the Pacific and North American plates. Trenching indicates that this fault last ruptured about 9,000 years ago. Although unlikely to occur in the near future, an earthquake of magnitude 7.5 on this or nearby faults is estimated to be capable of generating peak horizontal ground accelerations of about 0.105 g and MMI of VII at Big Bear Lake.

Unnamed Faults

The June 28, 1992, M_w 6.4 Big Bear earthquake occurred on an unnamed fault. The peak horizontal ground acceleration (0.57 g) was greater than that expected on named faults (0.352 g), indicating that these undiscovered and/or unnamed faults may pose a greater threat to the Big Bear community than those which are clearly mapped. Throughout southern California, numerous unnamed and "blind" faults pose an additional emerging threat to the area's communities.

To date, about 200 known faults are mapped within the southern California region. Scientists in southern California account for undiscovered and blind faults by using Global Positioning Systems (GPS) to determine the rates at which sites are moving relative to one another.

The mountainous regions of southern California are there because earthquakes are pushing them up; therefore, the most recent Southern California Earthquake Center (SCEC) regional study indicates that the San Bernardino Mountains region should anticipate ground shaking that exceeds 0.20 g about 4 to 5 times each 100 years.

OTHER SEISMICALLY INDUCED GEOLOGIC HAZARDS

In addition to direct effects such as ground rupture and ground acceleration, there are other seismically induced hazards that can injure people and damage structures. These hazards include liquefaction, dynamic settlement, ground fracturing or fissuring, lateral spreads, slumps, landslides, and earth or rock falls. Each of these is briefly discussed below.

Liquefaction

Liquefaction typically occurs in loose, saturated sediments of primarily sandy composition, in the presence of ground accelerations over 0.2 g. When liquefaction occurs, the sediments involved have a total or substantial loss of shear strength, and behave like a liquid or semi-viscous substance. Liquefaction can cause structural distress or failure due to settlement, a loss of bearing capacity in the foundation soils, and the buoyant rise of buried structures. The excess hydrostatic pressure

generated by ground shaking can result in the formation of sand boils and mud spouts, and/or seepage of water through ground cracks.

As indicated above, there are three general conditions that need to be met for liquefaction to occur. The first of these--strong ground shaking of relatively long duration--can be expected to occur in the General Plan area, as a result of an earthquake on any of several active faults in the region. The second condition--loose, or unconsolidated, recently deposited sediments consisting primarily of silty sand and sand--occurs in a large portion of the valley floor, in the northern and central portion of the General Plan area. In addition,these sediments satisfy the third condition of being saturated. Depending on the level of the Lake, ground water in this area typically occurs within 50 feet below the ground surface. Therefore, the potential for these sediments to liquefy is high to moderate. The southern portion of the City, on the other hand, is underlain with older alluvium or bedrock, with a low or non-existent liquefaction potential.

Regional mapping cannot account for local conditions, such as dense soil, abundant gravel and/or clay, or locally deep ground water. Therefore, site specific studies are recommended within the potentially liquefiable region prior to issuing construction permits. Local conditions demonstrate that liquefaction potential varies greatly in the City.

Currently for the City of Big Bear Lake, liquefaction mitigation is the responsibility of the project engineer. In California, the state-adopted Uniform Building Code (UBC) requires liquefaction investigation in all UBC Zone 4 regions that are underlain by shallow ground water within 30 feet of the surface. The low lying regions of the City of Big Bear Lake meet these criteria, and are thus required to investigate liquefaction potential prior to site development and mitigate as necessary. Exhibit EH-4, Liquefaction Susceptibility Planning Map, is provided to guide planners and engineers when development plans are proposed; however, this exhibit should be construed as only a guide, since local soil and geologic conditions may vary. The Chief Building Official will review all new development proposals pursuant to the UBC to determine whether additional studies or structural requirements are needed.

Seismically Induced Settlement

Under some circumstances, strong ground shaking can cause densification or compaction of soils resulting in local or regional settlement of the ground surface. This can result in local differential settlement and damage to foundations and structures, as well as damage to water and sewer lines. Some of the steeper hillside terrain within the planning area may be subjected to such settlement. In addition, regional settlements can damage pipelines on water and sewer lines.

The potential for seismically induced settlement to occur is controlled by the intensity and duration of ground shaking, and the relative density (the ratio between the in-place density and the maximum density) of the subsurface soils. Recently deposited alluvial sediments are potentially subject to seismically induced settlement. Developments near the Lake shore, on artificial fill, or on stream-deposited sediments should include subsurface geotechnical investigations that address the potential for seismically induced settlement on a site-specific basis. This hazard can be mitigated

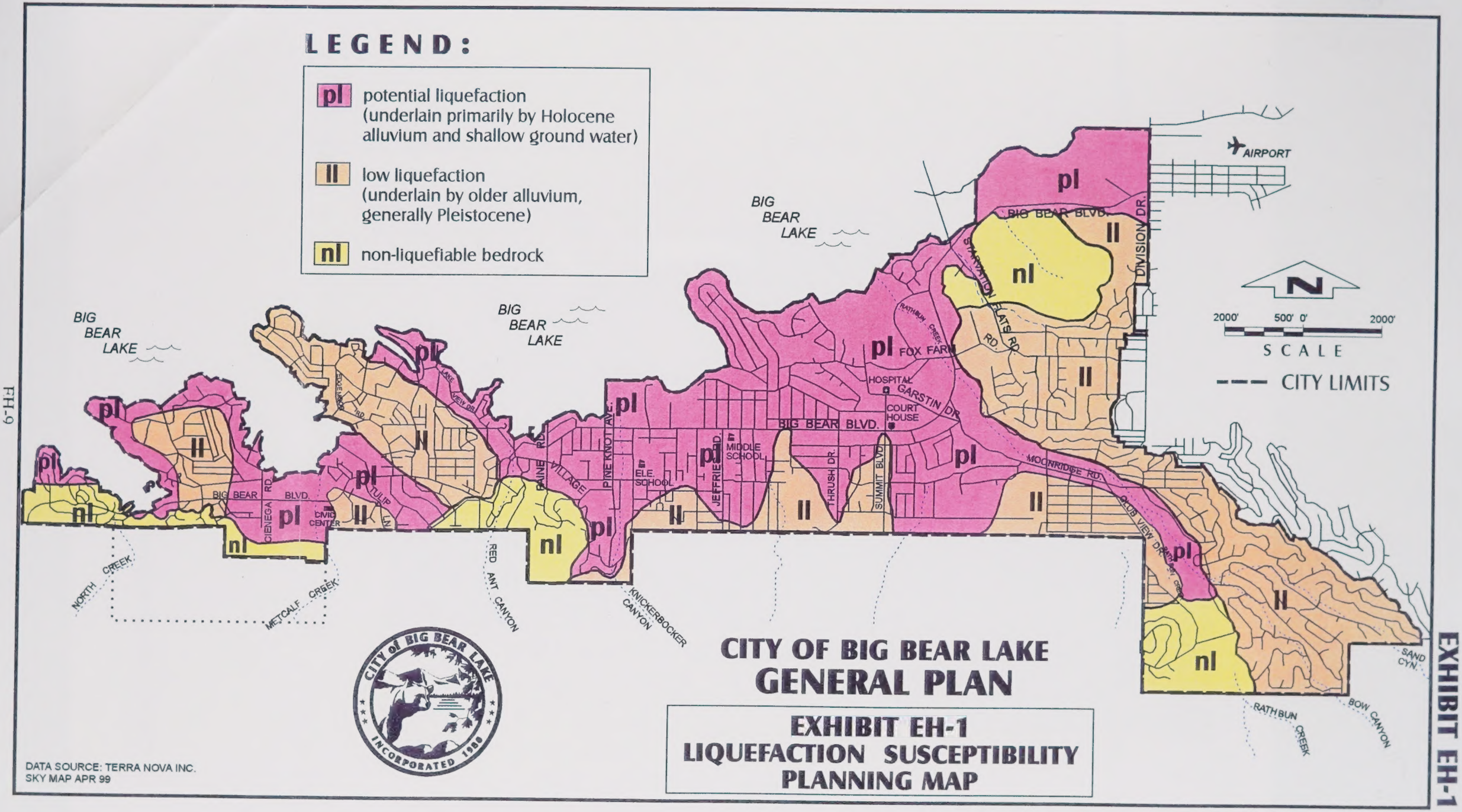
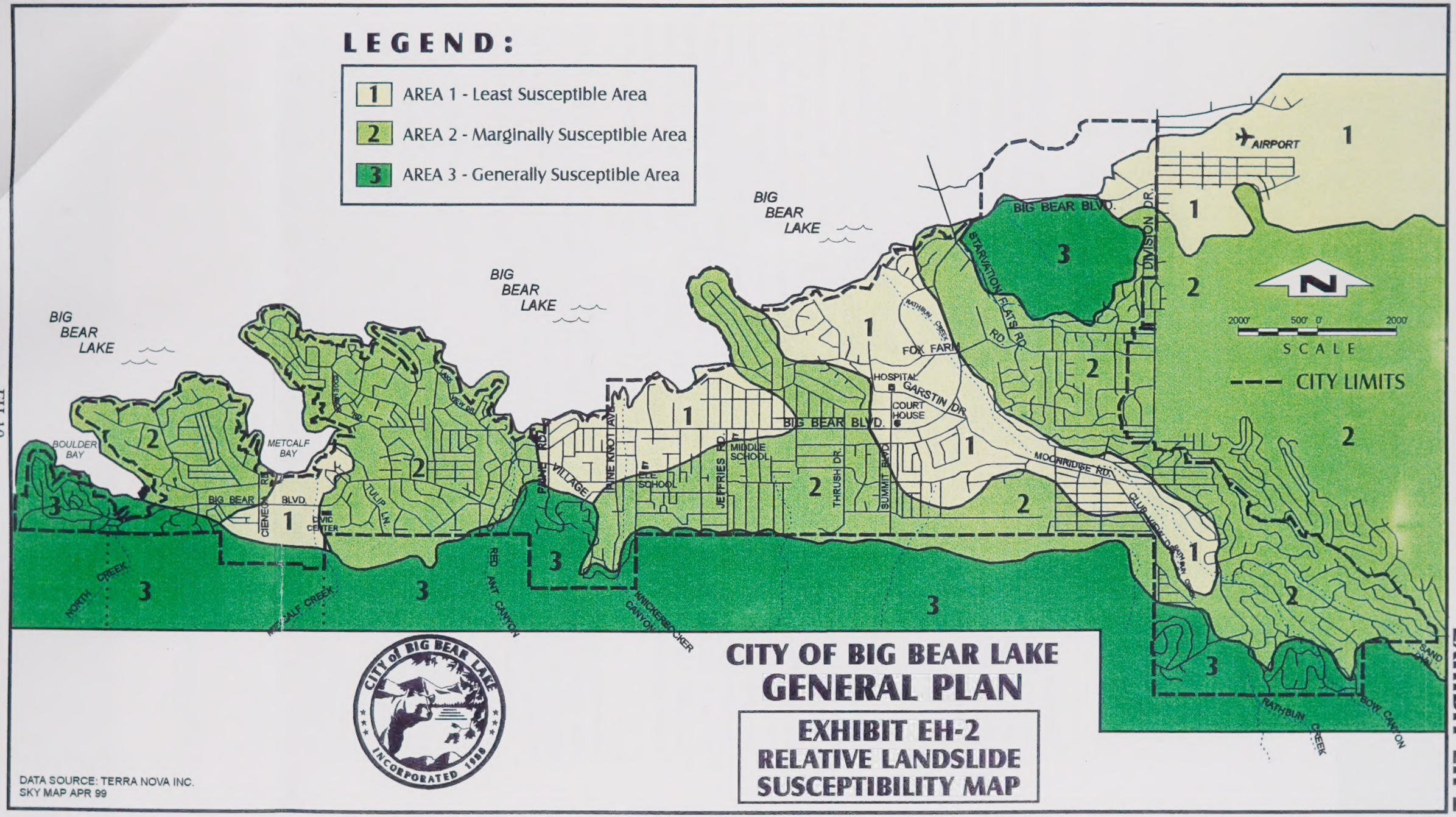

LEGEND:
pl potential liquefaction (underlain primarily by Holocene alluvium and shallow ground water)
ll low liquefaction (underlain by older alluvium, generally Pleistocene)
nl non-liquefiable bedrock
BIG BEAR LAKE
AIRPORT
N
2000' 500' 0' 2000'
SCALE
CITY LIMITS
BIG BEAR BLVD.
DIVISION DR.
STARVATION FLATS RD.
RATHBUN CREEK
FOX FARM
HOSPITAL
GARSTIN DR.
COURT HOUSE
MIDDLE SCHOOL
ELE. SCHOOL
JEFFRIES RD.
THRUSH DR.
SUMMIT BLVD.
MOONRIDGE RD.
CLUB VIEW DR.
PINE KNOT AVE.
VILLAGE
PAINE RD.
LAKE VIEW DR.
TULIP LN.
CIENEGA RD.
CIVIC CENTER
NORTH CREEK
METCALF CREEK
RED ANT CANYON
KNICKERBOCKER CANYON
SAND CYN.
BOW CANYON
CITY of BIG BEAR LAKE
INCORPORATED 1980
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT EH-1
LIQUEFACTION SUSCEPTIBILITY
PLANNING MAP
DATA SOURCE: TERRA NOVA INC.
SKY MAP APR 99

EXHIBIT EH-1

Exhibit EH-1-Liquefaction Susceptibility Planning Map

Exhibit EH-2-Relative Landslide Susceptibility Map



CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT EH-2
RELATIVE LANDSLIDE SUSCEPTIBILITY MAP

EXHIBIT EH-2

with proper site preparation that involves the densification of the subsurface soils, and with proper foundation design that can accommodate a limited degree of differential settlement resulting from seismic shaking.

Seismically Induced Slope Instability

Seismically induced landslides and rock falls may occur in areas with steep slopes. It is estimated that ground acceleration of at least 0.10g in steep terrain is necessary to induce earthquake-related rock falls. With several faults capable of generating peak ground accelerations over 0.10g in the study area, there is a high potential for seismically-induced rock falls and landslides to occur in some portions of Big Bear Lake and surrounding areas. Regional studies indicate that the San Bernardino Mountains area should anticipate ground shaking that exceeds 0.20 g about 4 to 5 times each 100 years.

Rock falls and general slope instability are relatively common and widespread in mountain areas due to seismic ground-shaking. The most notable rockfalls during the Big Bear earthquake were the falls associated with the very steep slopes of the Mill Creek and Whitewater River drainage areas about 10 to 15 miles south of Big Bear Lake. "Friction" fires were ignited by sparks from falling boulders in the Mill Creek region. Blocks associated with these falls weighed between 50 and 300 tons, and several landed within 30 to 100 feet of structures. Although no rockfalls or landslides occurred within the planning area during that earthquake, slope instability was reported for oversteepened slope cuts in the southeasternmost portions of the City. Rather than granitic bedrock, this relatively steep region of the City is underlain by less well-consolidated alluvial terrace materials. Ridge top shattering was also reported throughout the epicentral region of the Landers and Big Bear earthquakes. Such ground shattering can be expected at the top of Rebel Ridge and Moonridge areas as a result of the topography locally focusing the earthquake shaking.

Exhibit EH-2 indicates the relative susceptibility to landslides of land within and adjacent to the planning area. Areas with the highest susceptibility are outside the City and Sphere of Influence boundaries. With the exception of a few areas in category 3 (generally susceptible), the planning area has a low or marginal susceptibility. However, the potential for landslides will be evaluated by the Chief Building Official as part of the review process for any new development proposals.

Seismically Induced Inundation

Failure of water tanks, reservoirs, retention basins, recharge basins and other water storage structures can be caused by seismic events, especially in areas susceptible to ground failure. There are several above-ground water storage tanks in the City that could be subject to damage in an earthquake. Damage to these tanks could significantly hinder efforts to suppress fires and could greatly limit supply and availability of potable water after a major earthquake; however, the City's Department of Water and Power has recently completed a seismic retrofit program on all the water tanks in the City to mitigate this concern.

The City has no coordinated storm drainage system per se, although street drainage pipes are located throughout the City. Rathbun Creek is the only major flood control facility in the General Plan area, which is only partially maintained by the San Bernardino County Flood Control District. It is predominantly an earthen graded natural, unimproved drainage channel and is currently inadequate in some areas to contain 100-year storm flows. As drainage improvements are planned for the City, adequate flood control design must be balanced with efforts to maintain the integrity and health of the area's environmental resources. Additionally, design engineering of future major detention/retention facilities will need to focus on the seismic hazards of the area when planning for and constructing these facilities.

Collapsible and Expansive Soils

Soils are an important component of the geotechnical conditions in the General Plan study area. Two considerations are the potential of soils to collapse or to expand, causing damage to structures in either instance. Soil collapse typically occurs in recently (Holocene) deposited sediments laid down by wind or water. When saturated, collapsible soils undergo a rearrangement of their grains and a loss of cohesion or cementation, resulting in a substantial and rapid settlement even under relatively low loads. The alluvial sediments in the General Plan area are not considered especially prone to this type of collapse.

Expansive soils are those which include a significant amount of clay and are subject to swelling. Expansive soils can change in volume and can exert significant pressure on loads (such as buildings) that are placed on them. In the Big Bear Lake area, expansive soils are not considered a hazard because of the relatively minor amount of clay present in the alluvial soils derived from the regional granitic bedrock.

Inundation from Seiches

Big Bear Lake may be subjected to seiching as a result of an earthquake. A seiche is a free or standing-wave oscillation of the surface of water in an enclosed or semi-enclosed basin, such as a lake, bay or harbor. These waves can continue, pendulum fashion, for a time, even after the earthquake shaking ceases. Disturbance of the surface of Big Bear Lake as a result of the June 28, 1992, Big Bear earthquake was reported at a scale of several inches to several feet. However, the most significant seiching would be anticipated as a result of large near-regional or regional earthquakes that are more likely to subject the lake to longer-period ground shaking. Seiches usually occur in the direction of the longest diameter of the basin. The degree of inundation would vary depending on the duration and direction, of the earthquake shaking. Should the predominant direction of the earthquake match the natural tidal direction of the lake, inundation should occur.

Ground Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. In the areas of southern California where ground subsidence has been reported, this phenomenon is usually associated with the extraction of oil, gas or ground water from below the

ground surface. Ground subsidence can also occur as a response to natural forces such as earthquake movements, and the folding and subsiding activity of sedimentary basins. Earthquakes have caused abrupt elevation changes in excess of one foot across faults. Ground surface effects related to regional subsidence are generally restricted to structures sensitive to slight changes in elevations, such as canals, sewers, and drainage.

The Big Bear community relies entirely upon local ground water supplies. A series of vertical wells toward the center of the valley, as well as about eight slant wells within the nearby slopes, are utilized to service the Department of Water and Power's 14,000 customers (1997). Slant wells that remove ground water under gravity from slopes do not typically result in subsidence at the surface, nor has subsidence been reported associated with ground water withdrawal in the Valley. The maintenance of the level of the lake generally at 6,744 feet above sea level likely maintains ground water levels of similar height within the valley floor. Therefore, subsidence related to ground water withdrawal is considered unlikely while the Lake level maintains subsurface pore water pressure.

A small portion of the bedrock underlying the City consists of crystalline limestone that underlies the base of the Bear Mountain Ski Area. Subsidence hazards as a result of sinkhole formation are associated with limestone. However, studies show that the limestone in the region consists of Cambrian and uppermost Precambrian rocks that are considered crystalline and are much less likely to be dissolved by the actions of ground water.

Bear Valley Dam

In 1884 construction was completed on the first Bear Valley Dam, built to provide the new community of Redlands with a dependable, year-round water source. By 1911, the present multiple arch dam was built just downstream from the 1884 dam, twenty feet higher than the first. The National Dam Inspection Program examined the dam in 1980 and required that a seismic analysis be performed. The conclusion of that analysis was to declare the structure unsafe during a magnitude 8+ seismic event on the San Andreas Fault or the Bear Creek Thrust Fault. Retrofit repairs for the dam begun by the Municipal Water District in May of 1988 were completed in the summer of 1989. Phase II repairs include Caltrans' reconstruction or relocation of the bridge which is currently located on top of the dam, to allow for construction of improved spillway capacity.

It should be of paramount interest of the City to ensure continuing professional management of Bear Valley Dam. The Bear Valley Dam consists of one of the most resistant designs to damage from earthquake shaking. The 1988-89 retrofitted concrete arch dam and the strength of the underlying foundation materials make failure highly unlikely. High Lake levels can lead to increased flood hazard, slope instability and abnormally high rates of reservoir infilling of sediment (see Flooding and Hydrology Element).

Use of Exhibits

It should be noted that the maps included in this chapter show generalized locations of potential geologic hazards only, and should not be considered as a definitive indication that hazards exist or do not exist at any particular location. City staff and project applicants will continue to be responsible for performing geotechnical analysis as required by engineering standards and the California Environmental Quality Act, where appropriate. In addition, the maps are not intended to be used by the City to support requirements for additional analysis or mitigation, except where these requirements are deemed to be appropriate based upon conditions on the project site, available data and review by appropriate agencies at the time the project is proposed.

FUTURE DIRECTIONS

The City will need to rely on several mechanisms to address hazards identified in the Geotechnical Element. These include the regulations and guidelines set forth in the State CEQA Statutes and Guidelines, Development Code, the Uniform Building Code, and the Subdivision Ordinance. The development review process must assure that development proposals are thoroughly evaluated with regard to geotechnical and seismic safety, that all necessary special studies are conducted and reviewed, and that comprehensive mitigation measures are developed and implemented.

The City should also work with State, regional, and County agencies to establish and maintain an up-to-date information database on geotechnical and seismic conditions in the region, legislation affecting the City's regulatory responsibilities, and changing technical assessments that refine or recharacterize the geotechnical hazards affecting the region.

GEOTECHNICAL HAZARDS
GOALS, POLICIES AND PROGRAMS

GOAL EH 1

Minimized vulnerability to, and optimized protection of, the general health, safety and welfare of the community from the effects of geotechnical hazards that may impact lives, property and the economic well being of the community.

Policy EH 1.1
Ensure that new development proposals are evaluated for potential geotechnical impacts and that these impacts are mitigated to an acceptable level.

Program EH 1.1.1
Maintain records in the Planning and Engineering Divisions of geotechnical and soils reports, maps, data available from County and State agencies, and other information as appropriate, and make this information available to project applicants and staff for use in designing and evaluating new development proposals.
Responsible Agency: Planning and Engineering Divisions
Schedule: Ongoing

Program EH 1.1.2
Require development proposals in areas that have the potential to experience geologic hazards such as settlement, rockfall, landslide, slope instability and/or liquefaction, to prepare a detailed geotechnical analysis and incorporate report recommendations into the project as appropriate.
Responsible Agency: Planning and Engineering Divisions and reviewing authority
Schedule: Ongoing

Program EH 1.1.3
Review new development proposals (including single family residential uses) which are located in or immediately adjacent to areas with potential for soil instability, liquefaction and steep slopes to determine if significant constraints exist and to determine appropriate land use or hazard mitigation methods, and require compliance with any such measures identified.
Responsible Agency: Planning, Building and Safety, Engineering Divisions and reviewing authority
Schedule: Ongoing

Program EH 1.1.4
Maintain and apply the City's Slope Density Ordinance (Ordinance 90-191), as it may be amended from time to time, to protect hillside areas from incompatible development and minimize adverse geologic impacts.
Responsible Agency: Planning and Building and Safety Divisions and reviewing authority
Schedule: Ongoing

Policy EH 1.2
Pursuant to applicable state laws, address the issue of non-single family unreinforced masonry structures which may be hazardous due to inadequate design or construction, while providing reasonable alternatives for property owners to consider, that are in compliance with seismic upgrade requirements.

Program EH 1.2.1
The City shall adopt an ordinance creating a rehabilitation program for non-residential unreinforced masonry buildings with the goal of rehabilitating older, non-compliant structures within five years after adoption of the ordinance. The program shall provide for, but not be limited to, any or all of the following: measures to strengthen buildings; measures to change the acceptable occupancy levels or to demolish the building; and incentives to repair buildings which are available through federal and state programs.
Responsible Agency: Building and Safety Division
Schedule: Ordinance adoption FY 2000-01; implementation ongoing

Policy EH 1.3
Encourage the rehabilitation of older (pre-dating 1991) commercial, industrial and institutional structures and public infrastructure and utility systems which are not constructed to withstand major seismic events.

Program EH 1.3.1
Provide information on rehabilitation of commercial, industrial and institutional structures which were not constructed to withstand major seismic events.
Responsible Agency: Building and Safety Division
Schedule: Ongoing

Policy EH 1.4
Cooperate and coordinate with other agencies to ensure that public infrastructure and utility systems are designed and maintained to reduce damage from seismic events, and to plan for response in the event of a failure of these systems.

Program EH 1.4.1
Establish and maintain working relationships with utility and service providers to coordinate efforts on long-range planning, facility upgrades, maintenance, and emergency response plans.
Responsible Agency: Public Works Division, Department of Water and Power, Planning Division, Fire Department
Schedule: Ongoing

Program EH 1.4.2
Encourage and cooperate with Caltrans, San Bernardino County, and appropriate public agencies, to stabilize susceptible slopes and strengthen bridges, and other structures along state highways which may be subject to failure during major seismic events.
Responsible Agency: Planning Division, City Engineer, Public Works Division
Schedule: Ongoing

Program EH 1.4.3
Continue to monitor progress, and cooperate with Caltrans in implementing the relocation or reconstruction of Highway 18 at the Bear Valley Dam as soon as practical.
Responsible Agency: Planning Division, City Engineer, City Manager's Office
Schedule: Ongoing

Policy EH 1.5
Prepare for response to a major seismic event through update and implementation of the City's Emergency Preparedness Plan, which will include strategies to inform and educate the public on earthquakes preparedness planning and response.

Program EH 1.5.1
As part of the City's Emergency Preparedness programs, coordinate with local utility companies, school, park and county service districts, the library, hospital, and other appropriate entities to provide emergency preparedness information to the general public regarding appropriate action before, during and after earthquakes and other disasters.
Responsible Agency: Fire Department, Planning Division, Building and Safety Division, City Engineer
Schedule: Immediate, Continuous

CHAPTER 2: FLOODING AND HYDROLOGY

PURPOSE

The Flooding and Hydrology Chapter of the Environmental Hazards Element sets forth the goals, policies and programs that are intended to address potential drainage and flooding hazards occurring within the community. The primary intent of this Chapter is to ensure the protection of the general health, safety and welfare of the community from potential flooding and associated hazards, by establishing a long-range plan for flood control and management of runoff. This element references and coordinates with other elements of the General Plan which also address threats to the lives and property of the community's residents. The potential and extent of the 100-year flooding threat is assessed, the 100-year storm being the highest magnitude storm expected to occur on average every 100 years. It is the intention of the community to plan and implement the phased development of flood control facilities, both project-specific and City-wide. Where feasible, the Chapter encourages joint use of drainage and flood control facilities with recreational uses and conservation of biological resources.

BACKGROUND

Elements directly related to Flooding and Hydrology include the Emergency Preparedness Chapter of the Public Services Element, which addresses the City's response to natural disasters. Also related, to a lesser extent, is the Geotechnical Chapter, which addresses associated liquefaction, erosion threats and water storage facilities. The Hazardous and Toxic Wastes Chapter is also related by potential of storm water runoff transporting hazardous and toxic materials stored on the surface and underground. Other related elements include the Land Use Element, which affects essential relationships of use to location-specific threats, and the Circulation Element, which defines the availability of and need for secure access and evacuation routes in the event of a major flooding threat to the community.

State policies and regulations require that the General Plans of counties and cities identify and offer mitigation measures for existing and potential flooding hazards in the area. Specifically, Chapter 73 of the Statutes of California, 1939, mandates the joint planning of area-wide drainage plans affecting local jurisdictions. Mapping areas subject to inundation in the event of dam failures is required pursuant to California Government Code Section 8589.5 and 65302(g). Government Code Section 8401(c) requires that local governments plan, adopt, and enforce land use regulations for flood plain management. Known as the Cobey-Alquist Flood Plain Management Act, this legislation also sets forth requirements for receiving state financial assistance for flood control.

Mountain Conditions and Flood Hazards

The City of Big Bear Lake and the Big Bear Valley enjoy a Mediterranean type climate, typified by hot, dry summers and cool, moist winters, although these conditions can vary greatly due to topography. The coolest month of the year is January with a mean monthly temperature of 32.4°F. The warmest month is July with a mean monthly temperature of 63.8°F. The area's watershed is

mountainous with steep upper slopes leading to a mildly sloping valley. The surrounding mountains receive up to 35-45 inches of rainfall per year. Precipitation at Big Bear Lake's National Weather Service station from 1960 to 1995 averaged about 18 inches for each six month season from October to March.

Potential flooding problems in the City of Big Bear Lake are related to a rise in the water level of Rathbun Creek, and other drainage courses as identified in the Master Plan for Drainage, and to storm flooding in the alluvial fans and terraces located at the base of the mountains in the southern portions of the plan area. Since flow in the plan area drainages is intermittent, the channels can easily be clogged by debris. When a heavy rainstorm or rapid snow melt occurs, a channel may overflow.

Regional Flood Control

Storm drainage and flood control facilities in the City of Big Bear Lake are maintained and serviced jointly by the City of Big Bear Lake Public Works Division and the San Bernardino County Flood Control District. Each jurisdiction is responsible for segments of the existing facilities, as well as watershed and watercourse protection related to those facilities. To carry out its mandate, the District also has powers of taxation, bonded indebtedness, land and water rights acquisition, and cooperative partnerships with local, state and federal agencies. An elected Board acts as the official decision-making body of the District.

Local Drainage Management

The effectiveness with which the City manages drainage issues will have a direct effect on the scale, complexity and cost of future flood control facilities. The cost-effectiveness of prevention and on-site management is actively integrated into community land use planning and regulation, which recognizes significant constraints in many areas of the City. The most cost-effective solutions to flood hazards are good watershed management practices, which decrease the amount and rate of flow, and prudent land use planning to limit the number of structures and people located in prone areas.

The preservation of lands constrained by topography or drainage, including steep slopes, areas rich in vegetation and cover, and alluvial plains and drainage channels greatly reduces runoff and preserves the capacity of downstream facilities. Furthermore, the planned integration of on-site

storm water detention facilities, where possible and appropriate, significantly reduces the needed size of downstream facilities, while creating opportunities for enhanced open space and/or recreation areas.

FEMA and the Federal
Flood Insurance Rate Maps

Many of the areas of the United States subject to flooding from 100-year storms have been mapped by the Federal Emergency Management Agency (FEMA). The most widely distributed flood map

Exhibit EH-3-Flood Hazards/Inundation Map

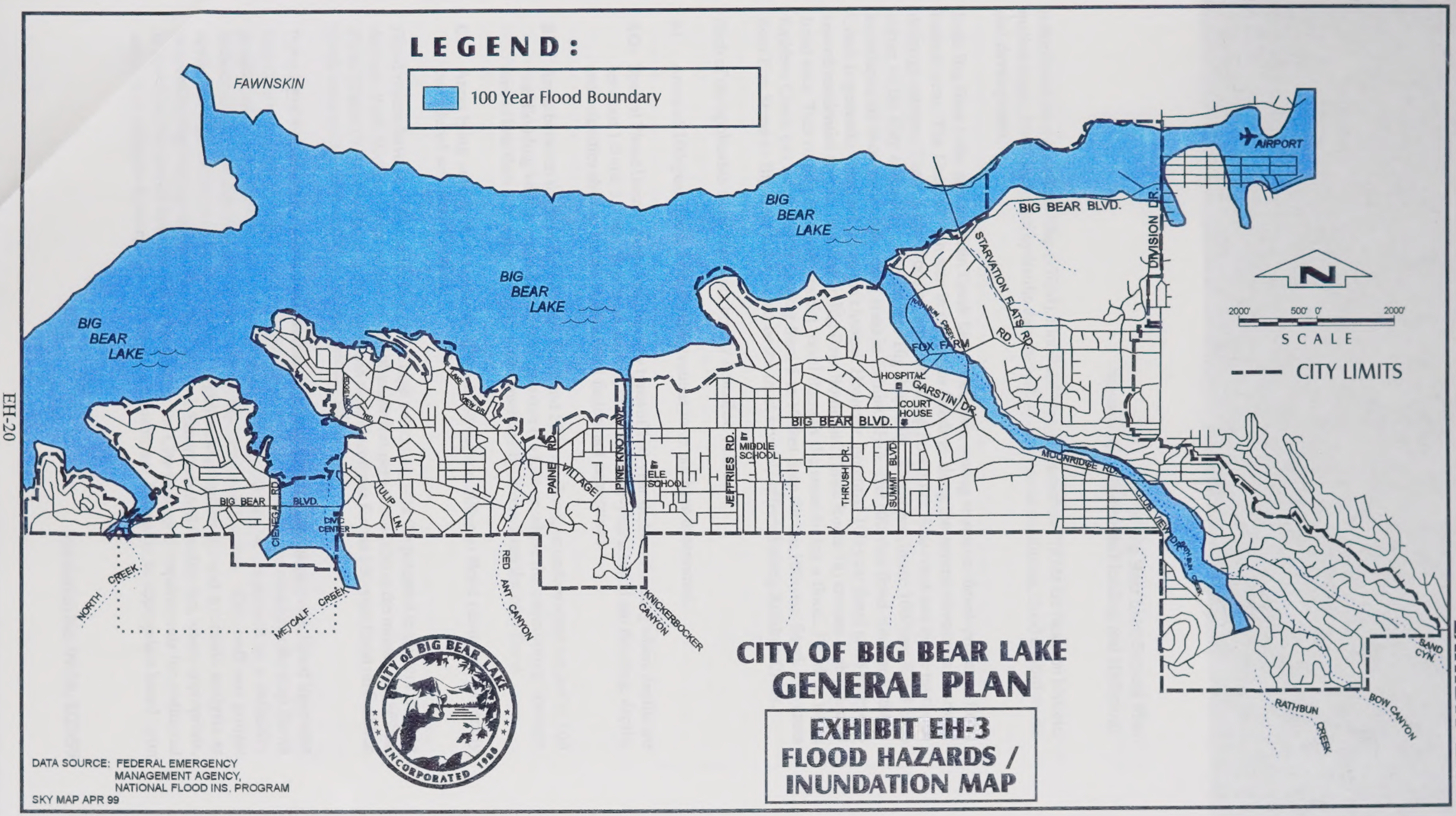

LEGEND:
100 Year Flood Boundary
FAWNSKIN
BIG BEAR LAKE
BIG BEAR LAKE
BIG BEAR LAKE
AIRPORT
BIG BEAR BLVD.
DIVISION DR.
STARVATION FLATS RD.
RATHBUN CREEK
FOX FARM RD.
HOSPITAL
GARSTIN DR.
COURT HOUSE
BIG BEAR BLVD.
MOUNTAIN VIEW DR.
MOUNTRIDGE RD.
THRUSH DR.
SUMMIT BLVD
JEFFRIES RD.
MIDDLE SCHOOL
ELE. SCHOOL
PINE KNOT AVE.
PAINE RD.
VILLAGE
TULIP LN.
EDGEWOOD RD.
LAKE VIEW DR.
BIG BEAR BLVD.
CIENEGA RD.
CIVIC CENTER
NORTH CREEK
METCALF CREEK
RED ANT CANYON
KNICKERBOCKER CANYON
RATHBUN CREEK
BOW CANYON
SAND CYN.
2000' 500' 0' 2000'
SCALE
CITY LIMITS
CITY OF BIG BEAR LAKE
INCORPORATED 1980
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT EH-3
FLOOD HAZARDS / INUNDATION MAP
DATA SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INS. PROGRAM
SKY MAP APR 99

EXHIBIT EH-3

is the Flood Insurance Rate Map (FIRM). Flood risk data presented on FIRMs are based on historic, meteorologic, hydrologic and hydraulic data, as well as open-space conditions, flood control works and development.

Both Big Bear Lake and Rathbun Creek have floodplain zoning to restrict development of flood hazard areas. The General Plan area is subject to flooding along the several streams and natural drainage courses. There is also flooding potential along Pine Knot Boulevard and in the northeast corner of the City extending eastward into Big Bear City. The approximate 100-year flood zone boundaries are shown for all flooding areas in Exhibit EH-3. The 100-year flood zone for Rathbun Creek is generally confined along the channel. However, potential 100-year flood areas extend to several residential streets. In addition, Big Bear Boulevard (State Route 18) crosses each potential flood area. This could potentially restrict travel through the areas during a flood. Flooding along Rathbun Creek can reach depths ranging from 5 to 17 feet deep for the 100-year flood. The areas from Elm Street to Big Bear Lake would be the most severely affected along Rathbun Creek.

Each of the applicable flood zones are briefly described below.

A: Areas of 100-year flood; base flood elevations have not been determined.

AO: Special Flood Hazard Areas inundated by types of 100-year shallow flooding where depths are between 1.0 and 3.0 feet; depths are shown, or areas of 100-year alluvial fan flooding, depths and velocities shown, but no flood hazard factors are determined.

B: Areas between limits of the 100 year flood and 500 year flood; or certain areas subject to 100 year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

C: Areas lying outside the boundaries of the 100-year and 500-year flood plains and generally considered safe from flooding.

Flood waters have been computed to move at high velocities, with the potential to do considerable damage. Peak discharge is calculated at 11,000 cubic feet per second (cfs) at the mouth of Rathbun Creek (Table IV-1). The flood hydrographs and peak discharges for the 100-year flood on Rathbun Creek were computed based on a 24-hour general rainstorm.

Exhibit EH-3 shows the boundaries of the 100-year flood plain as contained on the Flood Insurance Rate Maps prepared for Big Bear Lake dated March 18, 1996. It should be noted that the map shows generalized locations of potential flood hazards, and should not be considered as a definitive indication that hazards exist or do not exist in any particular location. City staff and project applicants will continue to be responsible for performing hydrologic and hydraulic analysis as required by engineering standards and the California Environmental Quality Act, where appropriate. In addition, the map is not intended to be used by the City to support requirements for additional analysis or mitigation, except where these requirements are deemed to be appropriate based upon

conditions on the project site, available data and review by appropriate agencies at the time the project is proposed.

TABLE EH-1
Summary of Peak Discharges for Rathbun Creek
(FEMA, 1991)

Flooding Source and Location (100 year)	Drainage Area (sq. Mile)	Peak Discharge (cfs)
Rathbun Creek		
at Big Bear Lake	6.37	11,000
at State Route 18	6.02	10,800
at Moonridge Road	3.34	7,200
at Lassen Drive (tributary channel)	.82	1,200

Major Flood Control Facilities

Capital projects such as dikes, levees, channels, and debris and detention/retention basins are often constructed to manage project-specific, community and regional drainage systems in the community. Designing, financing and construction of these facilities offers significant challenges, as well as opportunities. Approaches to flood control and their costs are weighed against the economic impacts likely to result from major flooding. Flood control improvements are frequently necessitated by development itself, which creates its own runoff management problems.

Rathbun Creek is the only major flood control facility in the General Plan area, which is only partially maintained by the San Bernardino County Flood Control District. It is predominantly an earthen unimproved drainage channel and is currently inadequate in areas to contain 100-year storm flows. As drainage improvements are planned for the City, adequate flood control design must also include efforts to maintain the integrity and health of the area's environmental resource. The City has no coordinated storm drainage system per se, although street drainage pipes are located throughout the City. Additionally, design engineering of future major detention/retention facilities will need to focus on the seismic hazards of the area when planning for and constructing these facilities. The City's Master Plan for Drainage, completed in 1999, outlines improvements needed to address flood control throughout the City. These improvements will be included in the Capital Improvement Program and will be constructed as funds become available.

Seismically Induced Inundation

Seismically induced inundation refers to flooding as a result of water retention structures, such as reservoirs, failing during an earthquake. Flood control and reservoir facilities could pose an inundation hazard if they contain water at the time of the seismic event, or if they are not repaired soon after an earthquake and prior to the next wet season. Seismically induced inundation can also occur if strong ground shaking causes structural damage to above-ground water tanks. However, the City's Department of Water and Power recently had all water tanks in the City inspected and the tanks have received upgrades to minimize this risk.

Inundation from Seiches

Big Bear Lake may be subjected to seiching as a result of an earthquake. A seiche is a free or standing-wave oscillation of the surface water in an enclosed or semi-enclosed basin such as a lake, bay or harbor (see Geotechnical Element). Although disturbance of the surface of Big Bear Lake as a result of the June 28, 1992, Big Bear earthquake was reported at a scale of several inches, no damage from flooding was reported. The degree of inundation would vary depending on the duration and period, or direction, of earthquake shaking.

Bear Valley Dam

Big Bear Lake and its Dam have a storage capacity of 73,000 acre feet, a crest height of 72.3 feet and a spillway capacity of 1,500 cfs. The lake level is maintained at an elevation of 6,743.2 feet above mean sea level, which matches the dam crest height. Excess water is released into the stream below. The local snow pack is currently not monitored, so that no analysis of its potential impact on the Lake is performed. Management of the lake level is essential in protection of surrounding lands from the potential for inundation.

The dam at Big Bear Lake is constructed of concrete, with foundation materials of intrusive granitic rock. Concrete dams, when well constructed and sited, have traditionally been the most resistant to earthquake damage. The dam was seismically retrofitted prior to the 1992 earthquake and performed well under the intense ground shaking of this event, with no damage reported. However, in the unlikely event of a catastrophic failure of the Bear Valley Dam, significant impacts to downstream communities, including the City of Redlands, can be expected.

Land Use Planning as a Flood Control Strategy

One of the most effective and direct methods of controlling flooding and limiting threats to lives and property is proper land use planning. Consistent with other primary goals of the community, land use planning can call for the preservation of natural vegetation in the foothills and mountains, which function as natural water sheds for local drainage and ground water recharge, and can affect the volume of storm water and debris that reach downstream facilities.

Land use planning can also limit the exposure of people and improvements to storm hazards and damage. Restrictions on the type and location of structures in the vicinity of major drainages within the community can greatly reduce potential losses. Within the limits of improved and unimproved 100-year floodplains, development should be limited; however, these areas can be used for recreation, water recharge, conservation, or other similar uses.

Within flood zones subject to sheet flooding, development approvals should be conditioned to assure protection of improvements from flood damage. Protection measures may include raising the finished floor level above the flood depth projected for the surrounding area and providing protection against scouring. Until such time as flood protection is provided, which removes areas from severe threats of flooding, development in these areas should be carefully regulated.

Flood Control and Wildlife

Natural drainage channels provide important habitat for a wide range of wildlife within the General Plan area (see Biological Resources Element). The City is faced with the long term challenge of balancing the need to preserve wildlife habitat, while protecting the lives and property of its citizens. Especially along Rathbun Creek, opportunities for habitat preservation should be evaluated when considering the design of additional flood control facilities.

FUTURE DIRECTIONS

The Flooding and Hydrology Chapter is implemented through the direct expression of policies and programs of this Chapter and through the implementation of other General Plan Elements, including the Environmental Resources, Open Space, Parks and Recreation, and Public Services and Facilities Element.

However, the principal and direct implementation of this Chapter will be through the enforcement and implementation of regional and City Master Drainage Plans. The Master Plans and their improvements help control and confine the area-wide drainage pattern to more discrete and focused routes where it can be better managed. It may also point to facilities that complement land use patterns, provide cost-effective flood control alternatives, and maximize opportunities for multiple uses, including enhanced groundwater recharge. The Master Drainage Plans will also set critical parameters for future development along areas subject to area-wide flooding. This Chapter will also be implemented through the development guidelines and regulations of the Development Code, Grading Ordinance and Subdivision Ordinance.

FLOODING AND HYDROLOGY
GOALS, POLICIES AND PROGRAMS

GOAL EH 2

Minimized damage to property, infrastructure and the Lake and protection of public health and safety through development and implementation of flood control plans, review of new development and mitigation of potential drainage impacts.

Policy EH 2.1
Evaluate flood control needs in the City and develop and implement long-range plans for master storm drainage improvements, along with funding programs, in coordination with other affected agencies.

Program EH 2.1.1
Develop and adopt a Master Plan of Drainage which includes a prioritized listing of needed facilities, and include such facilities in the City's Capital Improvement Program.
Responsible Agency: City Engineer
Schedule: Adoption 1999; implementation ongoing

Program EH 2.1.2
Update the City's ordinances and engineering standards as needed to reflect the recommendations and facilities contained in the Master Plan for Drainage, which may include but not be limited to techniques for snow storage and standards to reduce the rate of runoff.
Responsible Agency: City Engineer
Schedule: Update standards FY 1999-2000; implementation ongoing

Program EH 2.1.3
Ensure that the City's drainage courses are regularly maintained and kept free of debris and obstructions to the extent allowed by environmental laws and restrictions.
Responsible Agency: City Engineer, Public Works Division
Schedule: Ongoing

Program EH 2.1.4
Implement public financing programs where feasible to provide for required drainage improvements and coordinate design and construction of flood control improvements with adjacent jurisdictions where appropriate.
Responsible Agency: City Engineer, City Council
Schedule: Ongoing

Program EH 2.1.5
Coordinate with the Forest Service to inform them of flooding problems within the City which result from conditions on National Forest land, and work with that agency to resolve these issues as needed.
Responsible Agency: Public Works Division
Schedule: Ongoing

Program EH 2.1.6
The City shall cooperate in securing FEMA map amendments recognizing the appropriate redesignation of the 100-year flood plains within the City boundaries as needed.
Responsible Agency: City Engineer
Schedule: Ongoing as needed

Policy EH 2.2
Require that new development shall not be exposed to flood hazards or contribute to an existing flood hazard, in accordance with Master Plan of Drainage and other applicable regulations.

Program EH 2.2.1
Require that building foundations be a minimum of one (1) foot above the 100-year flood elevation, unless alternative diversion methods are approved by the City Engineer.
Responsible Agency: City Engineer
Schedule: Ongoing

Program EH 2.2.2
Require development proposals in areas that have potential to experience flooding or cause additional stormwater flows to prepare a detailed hydrology study and incorporate report recommendations into the project as appropriate.
Responsible Agency: City Engineer
Schedule: Ongoing

Program EH 2.2.3
Require that all required primary and secondary access routes for new development should be located outside of the 100-year flood plain or be designed to withstand a 100-year flood, to the extent feasible.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Program EH 2.2.4
Ensure that new development complies with flood plain zoning and watershed management regulations.
Responsible Agency: City Engineer and reviewing authority
Schedule: Ongoing

Policy EH 2.3
Provide information to the public regarding flood plains, watershed management practices, flood insurance rate maps, minimizing pollution of surface waters, and other hydrologic issues as needed.

Program EH 2.3.1
Prepare and distribute information showing methods to prevent pollution of surface water runoff by point and non-point source pollutants, to promote protection of the watershed.
Responsible Agency: Planning Division, Building and Safety Division, Department of Water and Power
Schedule: Initiate in FY 1999-2000

Policy EH 2.4
Prepare for response to flooding through update and implementation of the Emergency Preparedness Plan, which will include evacuation and access plans for areas in which existing development is located within a 100-year flood plain.

Program EH 2.4.1
Emergency evacuation/access plans shall be developed for areas of the City where development already occurs within the 100-year flood plain.
Responsible Agency: Fire Department, Public Works Division, Planning Division, City Engineer
Schedule: FY 1999-2000 and ongoing

Program EH 2.4.2
Confer and consult with the Municipal Water District and Caltrans to assure adequate all-weather crossings/facilities at appropriate locations along State Highways surrounding the Lake, especially those serving as emergency evacuation/access routes.
Responsible Agency: City Engineer, Public Works Division
Schedule: Ongoing

Policy EH 2.5
Promote the joint use of flood control facilities for recreational uses and as natural open space, where feasible and appropriate.

Program EH 2.5.1
In development or review of proposed detention/retention basins, evaluate the potential for their use as play fields and implement joint use facilities where appropriate.
Responsible Agency: Engineering, Public Works, and Planning Divisions, City Council
Schedule: As needed and appropriate

Program EH 2.5.2
In plans to improve drainage courses for flood control, consider the feasibility of their use as open space corridors and recreational trails, and plan for these joint uses where feasible and appropriate.
Responsible Agency: Planning, Engineering, and Public Works Divisions
Schedule: Ongoing

CHAPTER 3: HAZARDOUS AND TOXIC MATERIALS

PURPOSE

The Hazardous and Toxic Materials Chapter identifies issues pertaining to the use, storage and disposal of hazardous and toxic materials in the community, and describes the regulatory environment established to safely manage these materials. The intent of the Hazardous and Toxic Materials Chapter is to reinforce the City's concern and planning for the protection of all Big Bear Lake residents and visitors from diverse health and other impacts due to the presence of hazardous and toxic materials. The Chapter sets forth goals, policies and programs that will help assure an effective response to the use, storage, or transport of hazardous and toxic materials in the City of Big Bear Lake, and help ensure the general health, safety and welfare of the community from possible impacts associated with these materials.

BACKGROUND

The Hazardous and Toxic Materials Chapter is directly related to the Air Quality and Water Resources Chapter, as policies implemented for hazardous and toxic waste management will have an effect on preservation of clean air and protection against water resource contamination. It is also related to the Land Use Element since hazardous or toxic materials and their storage or disposal may affect land use compatibility, and site contamination impacts the future re-use potential of affected properties. The Emergency Preparedness Chapter has a direct relationship to the emergency management of these materials and their potential adverse impacts on the community as a result of spillage or upset. Resources addressed by the Biological Resources Chapter may also be affected by the improper management of these materials, especially herbicides and pesticides. The Fire and Police Protection Chapter also has a relationship to this element, in that the Fire Department conducts inspections of businesses which use these materials and responds to incidents involving hazardous materials, referring larger incidents to the appropriate agency.

California Government Code Section 65302(g) mandates that the General Plan of a community address safety issues, including but not limited to hazardous materials. Modern industrial society has generated a wealth of materials and technologies that have improved our quality of life but have also introduced new and potentially hazardous materials, which must be carefully managed. This Chapter discusses various issues associated with these hazardous and toxic materials and provides background information on how they are to be managed and discarded. Most potential hazardous materials problems in the Valley are associated with leaking fuel storage tanks, emissions from industrial and commercial solvents and coatings, and hazardous waste generated by households and commercial businesses. Although control and regulation of hazardous and toxic materials rest largely with county, state, and federal agencies, the City Fire Department plays a key role in monitoring local conditions and coordinating with the appropriate agencies to implement plans for hazardous material use and waste disposal.

In the City of Big Bear Lake, there are a variety of hazardous/toxic material generators associated with commercial, institutional and quasi-industrial uses, including auto repair, medical offices and facilities, painting contractors, contractors' storage yards and maintenance facilities, bulk sales of paints and solvents, print shops, photographic supplies, dry cleaners and other uses. In addition, a wide variety of products that are considered hazardous or toxic are used in households. Chemicals that might be expected to be found in the City include chlorine products, chemical fertilizers, herbicides and pesticides, stored fuels and waste oil, chemical solvents and lubricants, and products associated with nuclear medicine. If improperly handled and managed by service stations, petroleum product and equipment suppliers, pesticide vendors and users, automotive dealers, medical practitioners and hospitals and clinics, these materials could pose a significant potential threat to the community and its environment, even though most are considered "small quantity generators."

Bear Valley Community Hospital

Bear Valley Community Hospital is one of the substantial "small quantity generators" in the City. The hospital produces hazardous medical wastes associated with various procedures and treatments provided. Management and disposal of these materials is primarily the responsibility of the U.S. Environmental Protection Agency (EPA), with additional regulatory responsibility given to the California Office of Health Planning and Development and the San Bernardino County Fire Department, Hazardous Materials Division. Bear Valley Community Hospital has developed and implemented both a Medical Waste Management Plan and a Hazardous Materials Management Program, which set forth policies, programs and procedures for handling, storage, use and disposal of these materials. Wastes are stored in controlled conditions on-site and removed every ninety days, with storage typically limited to less than 100 gallons within that time period.

Ski Resorts

Two local ski resorts produce hazardous wastes associated with the equipment used to maintain their large operations, including the waste oil from equipment and vehicle maintenance and fuel storage for snow making and lift operations. They also handle and store hazardous materials in underground fuel tanks. The State and EPA regulations mentioned above also apply for these operations.

Community Hazardous Waste Risks

In addition to the above-listed uses, there are other sites that have been or should be monitored. These include other waste-generating medical clinics and facilities, contractors' storage yards, vehicle maintenance facilities, automobile service stations, equipment and fuel storage yards, wrecking yards, and waste haulers.

According to the State of California Hazardous Waste and Substances Sites List prepared by the California Environmental Protection Agency, there are 17 sites listed within the City of Big Bear Lake, all of which are associated with underground fuel tanks. The U.S. EPA requires all service stations to retrofit or replace underground storage tanks with double-walled construction. According

to the San Bernardino County Fire Department, Hazardous Waste Division, all storage tanks installed prior to 1984 must be upgraded or removed to meet current regulations by December 22, 1998. Most sites in the City have already complied with this rule, and permits have been processed to upgrade the remaining tanks within the required time frame.

Various industrial activities, including printers, dry cleaners (although the chemicals now used by dry cleaners are not as toxic as they once were), paint stores, marinas, paving contractors, and automobile repair shops also have the potential for uncontrolled discharge of hazardous materials, and are permitted through the San Bernardino County Fire Department Hazardous Materials Division.

Hazardous Waste Disposal

Strong ground shaking caused by earthquakes can also set into motion hazards such as disruption of essential services, including sewer systems, and releases of hazardous materials can occur. The City is in the process of upgrading the sewer system, including pump stations, and these upgrades will address seismic hazards to minimize the risk of spills in the event of a major earthquake.

The City Fire Department has obtained a grant to fund the establishment of a household hazardous waste collection facility at the Garstin Public Works yard. The yard is currently open for collection on the second and fourth Saturdays of each month, weather permitting. The City and Big Bear Community Services District jointly contract with San Bernardino County to staff this facility and to dispose of the waste collected, with the City's costs funded by the General Fund annually. Although this facility has been designed to handle household waste only, the City has recently identified a need for small generators of hazardous waste within the business community to have access to this type of collection point, and the City will be evaluating the feasibility of expanding the service to include small business generators as well.

Hazardous Waste Management Plans

The City of Big Bear Lake has the opportunity to coordinate with appropriate county, state and federal agencies in the identification of sites where hazardous materials are used, and the City Fire Department will likely be the agency of first response in the event of a hazardous materials spill requiring cleanup. The Fire Department's capacity or authority is as a First Response Team; the agency responsible for the Hazardous Response Plan is the County of San Bernardino. Management strategies may include establishing and maintaining information on these sites, and periodic monitoring of facilities and operations that utilize or produce hazardous materials in the City. The County requires preparation and submittal of commercial business plans for uses which handle hazardous materials, and this information is shared with the Fire Department. Since the Fire Department conducts annual inspections of businesses within the City to review Fire Code compliance, the Department also has an opportunity to ensure that hazardous materials plans are being adequately followed. The Department may also be involved in monitoring and regulating of

underground storage tanks and regulating the transport of hazardous materials through the community.

In order to comply with Health and Safety Code Section 25135, the San Bernardino County HWMP (Hazardous Waste Management Plan) assures that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within the jurisdiction, and addresses issues related to manufacture and use. At the planning level, the City currently requires that projects which are approved comply with the HWMP. AB 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorizes counties to prepare HWMP in response to the need for wise management of hazardous materials and waste products. The County HWMP identifies the types and amounts of wastes generated in the County and establishes programs for managing these wastes. Preparation of the HWMP included extensive public participation. Its policies call for the coordination of County efforts with state and federal agencies in the identification and establishment of programs for managing these wastes. The City has also adopted a Hazardous Waste and Source Reduction and Regulation Plan, which sets forth policies and programs for the management, control and reduction of hazardous wastes. This plan was developed jointly by the County, the City of Big Bear Lake, and other cities within the County, the State, the public and industry to address the disposal, handling, processing, storage and treatment of local hazardous materials and waste products.

The California Regional Water Quality Control Board (CRWQCB), in conjunction with the Big Bear Lake Department of Water and Power, maintain information concerning contaminated wells and groundwater. The state and federal Environmental Protection Agency (EPA) and the State Department of Health also supply information concerning specific hazardous waste sites and their locations. Private database screening and documentation services are also available, which will search, extract, and summarize reports on contaminated sites recorded in various state and federal databases.

Hazardous Materials Response

To abate hazardous and toxic materials that are determined critical by the State of California Department of Toxic Substance Control, the County Fire Department Hazardous Materials Division and the City can require property owners to test, temporarily close and/or remove all hazardous liquids, solids or sludge located on a site. Leaking underground storage closure and monitoring are generally required by the site's operating permit. When soil contamination is detected, the clean up procedure to be followed, the degree or level of cleanliness required by the regulator, and the method of treatment (if permitted) will be directed by the County Fire Department Hazardous Materials Division and/or the Regional Water Quality Control Board.

Review of New Hazardous Materials Users

The City has the opportunity to identify new development proposals which will use hazardous materials at two stages of the review process: when a business license is applied for, and when a new

development proposal is reviewed by the Development Review Committee. At the business license stage, the City staff can inform the applicant of hazardous materials permit requirements and procedures, directing the applicant to the proper agency for permit applications. During plan review of new structures or alterations to existing structures, the Fire Department and Building and Safety Division can review what materials are proposed to be stored on the site and ensure that proper measures for safe handling are incorporated into the building construction.

FUTURE DIRECTIONS

The City of Big Bear Lake has the responsibility to coordinate with the appropriate agencies in monitoring the use of hazardous materials within the City, and responding to events requiring clean-up of these substances. This element can most efficiently be implemented through regular consultation with the RWQCB and the County Fire Department Hazardous Materials Division, by maintaining information on businesses which use hazardous materials, and monitoring facilities to ensure that they have approved business plans and that they are in compliance with these plans. The City should also remain current regarding the monitoring and regulating of fuel and hazardous material storage tanks, and regulating the transport of hazardous materials through the community.

A carefully coordinated program of oversight and management between responsible agencies will be essential. Regular consultation and coordination between the City Emergency Preparedness personnel and responsible county and state agencies is also appropriate. Processes for determining appropriate levels of local, County and State personnel and facilities will also be critical. The goal, policies and programs of this element help to direct the planning and development of appropriate strategies to address hazardous and toxic materials in the community.

HAZARDOUS AND TOXIC MATERIALS GOAL, POLICIES AND PROGRAMS

GOAL EH 3

Ensure the safety of residents, businesses, and visitors in the City of Big Bear Lake through monitoring and coordinated enforcement, with other agencies, of regulations pertaining to the production, transport, use, and disposal of toxic and hazardous materials.

Policy EH 3.1
Coordinate with other agencies as appropriate to monitor businesses which use hazardous materials and to ensure a timely response to any events which require clean-up of these materials.

Program EH 3.1.1
Through the development review process, identify uses which propose the manufacture, storage, use and/or disposal of significant quantities of hazardous and toxic materials within the community, and require that these projects obtain a conditional use permit and comply with the County Hazardous Waste Management Plan.
Responsible Agency: Planning Division, Development Review Committee, reviewing authority and Fire Department
Schedule: Ongoing

Program EH 3.1.2
Coordinate with appropriate departments and agencies to establish transportation management and contingency emergency procedures and training programs for police, fire, medical and other organizations that would be involved in an airborne release or ground spill of hazardous and toxic materials or waste.
Responsible Agency: Public Works Department, Fire Department, Sheriff's Department
Schedule: Ongoing

Program EH 3.1.3
Coordinate with San Bernardino County to obtain copies of business plans addressing the use of hazardous materials within the City, and review proper handling and storage procedures with business owners as part of the annual business inspection program.
Responsible Agency: Fire Department
Schedule: Ongoing

Policy EH 3.2
Facilitate the safe and immediate cleanup of all existing and future hazardous waste sites within the City of Big Bear Lake.

Program EH 3.2.1
Coordinate with the appropriate state and federal agencies to activate procedures for the cleanup of existing and future hazardous and toxic waste sites within the planning area.
Responsible Agency: Building and Safety Division, Fire Department, other agencies as appropriate
Schedule: Ongoing

Policy EH 3.3
Cooperate with the responsible agencies to assist and facilitate the safe and responsible disposal of all hazardous and/or toxic wastes in compliance with existing federal, state and county regulations.

Program EH 3.3.1
Prepare and/or disseminate information and instructive education program materials including direction on the identification and proper management of household hazardous waste.
Responsible Agency: Planning Division, Public Works Division, Fire Department
Schedule: Ongoing

Program EH 3.3.2
Continue to make a household hazardous waste collection site available to residents within the City, and evaluate expanding this service to handle small business generators of hazardous waste.
Responsible Agency: Fire Department, Public Works Division
Schedule: Ongoing

NOISE ELEMENT

NOISE ELEMENT

PURPOSE

The Noise Element is intended to help coordinate the community's various land uses with the existing and future noise environment, and to ensure that any negative effects of noise are minimized or avoided. It is the intent of this element to identify current noise problems within the planning area and to determine future noise impacts resulting from continued growth. As development continues, the City will review proposals to ensure that noise impacts are mitigated through land use planning and project design. Through the implementation of the policies and programs of this element, any current and future adverse noise impacts can be greatly reduced or avoided entirely, and the general health, safety and welfare of the community can be protected from significant noise impacts.

BACKGROUND

The Noise Element is directly related to the Land Use and Circulation Elements. The location of sensitive land uses, including housing, schools and medical facilities, is affected by issues addressed in the Noise Element. This element also has a direct relationship to the economic development policies in the Land Use Element, with the City's peaceful and quiet atmosphere a major community asset. Low noise levels are a basic element of the resort residential environment, with existing community noise being dominated by highway and local traffic, intermittent aircraft flyovers, and commercial operations and heating/ventilation equipment. In general, however, the residential neighborhoods of the community are quiet, with average noise levels typical of quiet rural areas. Occasional high noise levels from general and commercial aviation have a limited but intrusive impact on the community's noise environment.

The issues addressed in the Noise Element include those set forth in subsection (f) of the California Government Code Section 65302, which requires that the Noise Element identify and analyze noise problems in the community. The California Department of Health Services has prepared a Model Noise Element to assist local agencies in the development of guidelines to control and abate noise. The California Environmental Quality Act (CEQA), Section 21083.1, mandates adherence to the State Guidelines and empowers communities to determine whether or not a proposed project may have a "significant effect on the environment" with respect to noise. These significant impacts may range from excessive traffic noise in a residential neighborhood, to industrial manufacturing noise impacts on a hospital or convalescent home or other sensitive use.

Concern regarding the potential psychological and physiological impacts of noise has increased significantly in recent years. Excessive noise levels are not only a potential annoyance but can constitute a significant health threat resulting in temporary or permanent hearing loss and mental distress. The noise environment can also have a profound influence on the quality of life enjoyed by residents and visitors.

Community Noise Equivalent Level (CNEL) & Decibel Weighted Level (dbA)

Noise is defined as unwanted or undesired sound. Airborne sound is the result of a very rapid change in air pressure from the surrounding "normal" atmospheric pressure. The combination of noise from all sources near and far is the Ambient Noise Level. For purposes of this discussion, the ambient noise level at a given location is termed "environmental noise".

Understanding environmental noise requires some familiarity with the physical description of noise. The important physical characteristics of sound include its frequency range, intensity/loudness and temporal/time-varying aspect. The decibel, (db), A-weighted level (dBA), and Community Noise Equivalency Level (CNEL) are all units of measurement used to describe and numerically weight noise, and are defined below.

The decibel is a unit of measurement describing the amplitude or strength of sound. The Community Noise Equivalent Level (CNEL) is the weighted average of the intensity of sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 decibels to sound levels at night between 10 p.m. and 7 a.m. These additions are made during these time periods because during the evening and night hours, with the decrease in overall amount and loudness of noise generated, when compared to daytime hours, there is an increased sensitivity to sounds. For this reason sounds seem louder and are weighted accordingly. Essentially, during these evening and night hours the maximum tolerable noise level should be 5 to 10 dBA lower and the CNEL number is weighted to assure this bias.

A second measurement technique is a Maximum Decibel Weighted Level (dbA) over a specific period of time, usually an hour. This measurement may be more appropriate to apply to some types of noise generators within the City of Big Bear Lake, as different times of day and uses represent differing noise environments. The City should protect its tranquil setting, with consideration to the community's varied activities.

Ranges and Effects of Noise

The most common sounds vary between 40 dB (very quiet) and 100 dB (very loud). Normal conversation at three feet is roughly at 60 dB, while loud engine noise equate to 110 dB, which can cause serious discomfort. Due to the logarithmic nature of the sound measuring (decibel) scale, doubling the sound energy of a noise source only increases the decibel rating by 3 dB. However, due to the internal mechanism of the human ear and how it receives and processes noise, a sound must be nearly 10 dB higher than another sound to be judged twice as loud. Physical health, psychological well-being, social cohesion, property values and economic productivity can all be affected by excessive amount of noise.

The effects of noise on people can be grouped into three categories: subjective effects, such as annoyance and nuisance, interference with activities such as conversation and sleep, and physiological effects, for example, a startle or hearing loss. Adverse reactions to noise generally

increase with an increase in the difference between background or ambient noise and the noise generated from a particularly intrusive source such as a barking dog, traffic, aircraft or industrial operations. In most situations, noise control measures must reduce noise by 5 to 10 dBA in order to effectively lower the perceived sound. Therefore, loud, short duration noises from barking dogs and low-flying aircraft generally have little impact upon the CNEL levels of an area, due to the averaging techniques utilized to define CNEL.

EXISTING COMMUNITY NOISE ENVIRONMENT

In the City of Big Bear Lake, the primary source of noise is motor vehicle traffic, primarily along the Highway 18 - Big Bear Boulevard corridor. To a lesser but occasionally substantial degree, boats and other watercraft using the lake are a source of disruptive noise, and aircraft traffic also contributes an intrusive element to the noise environment. Other sources of community noise include mechanical equipment serving commercial land uses, resorts and major institutions, i. e., snowmaking machines. In addition, with the growing number of commercial entertainment venues, noise from amplified music and entertainment has become a concern to adjacent lodge owners and residential neighborhoods, particularly in the areas near the Lake where sound carries for long distances.

Motor Vehicle Noise (Landcraft)

The principal noise source measured (1997) within the community is vehicular traffic, including automobiles, trucks, buses, and motorcycles. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic and other sources at several locations in the community on local noise environments. Table N-4 presents projected noise contours along arterial corridors at current traffic levels and at General Plan buildout.

Motor Vehicle Noise (Water craft)

The results of the 1997 noise survey conducted by Hersh Acoustical Engineering, Inc. have shown that along the lake shore, ambient noise readings can reach as high as 56 dB and this level is not uncommon during the water craft season. Noise levels from aircraft flying over the lake are generally higher than noise generated from water craft; however, boats with modified engines can significantly increase the noise level.

While noise stemming from the lake can be heard throughout the community, the noise levels adjacent to the lake are infrequently above the level considered compatible with residential uses. Most of the area adjacent to the lake is planned and zoned for residential uses, with the exception of several marinas and resorts.

Aircraft Noise

The Big Bear Lake Airport contributes intermittent aircraft noise to the noise environment. The overall level of air traffic, which is predominantly day time operations by single engine propeller aircraft, results in noise levels upwards of the 70 dB range primarily due to individual aircraft flying over the lake. This type of single event noise impact is difficult to mitigate with land use policies; however, noise attenuation measures can be taken in construction of sensitive uses, such as single family residential, to maintain acceptable interior noise levels.

Mechanical and Industrial Noise

In addition to noise generated by vehicular traffic and aircraft, there are other noise generators within the City which could create noise-related compatibility issues with adjacent sensitive uses. Industrial operations, construction, and use and repair of motorized equipment can create noise problems. Loading and materials transfer areas, outdoor materials warehousing operations and other acoustically unscreened operations will also contribute to issues of land use compatibility.

Another source of noise within the planning area comes from the operation of mechanical equipment, such as snowmaking equipment during the ski season and refrigerator units and heating/air conditioner equipment associated with commercial centers. Noise from roof-mounted equipment can penetrate into adjoining neighborhoods and impact sensitive receptors. The constant hum associated with fans and compressors can impact the enjoyment of the outdoors and adversely affect the resort residential quality of life. These impacts can be mitigated through the development review process by addressing equipment design and noise attenuation techniques. While some types of equipment noise associated with the area's recreation-based economy may be inevitable, such as snowmaking machines, these noise sources should be required to mitigate noise to the extent feasible by using the best available technology.

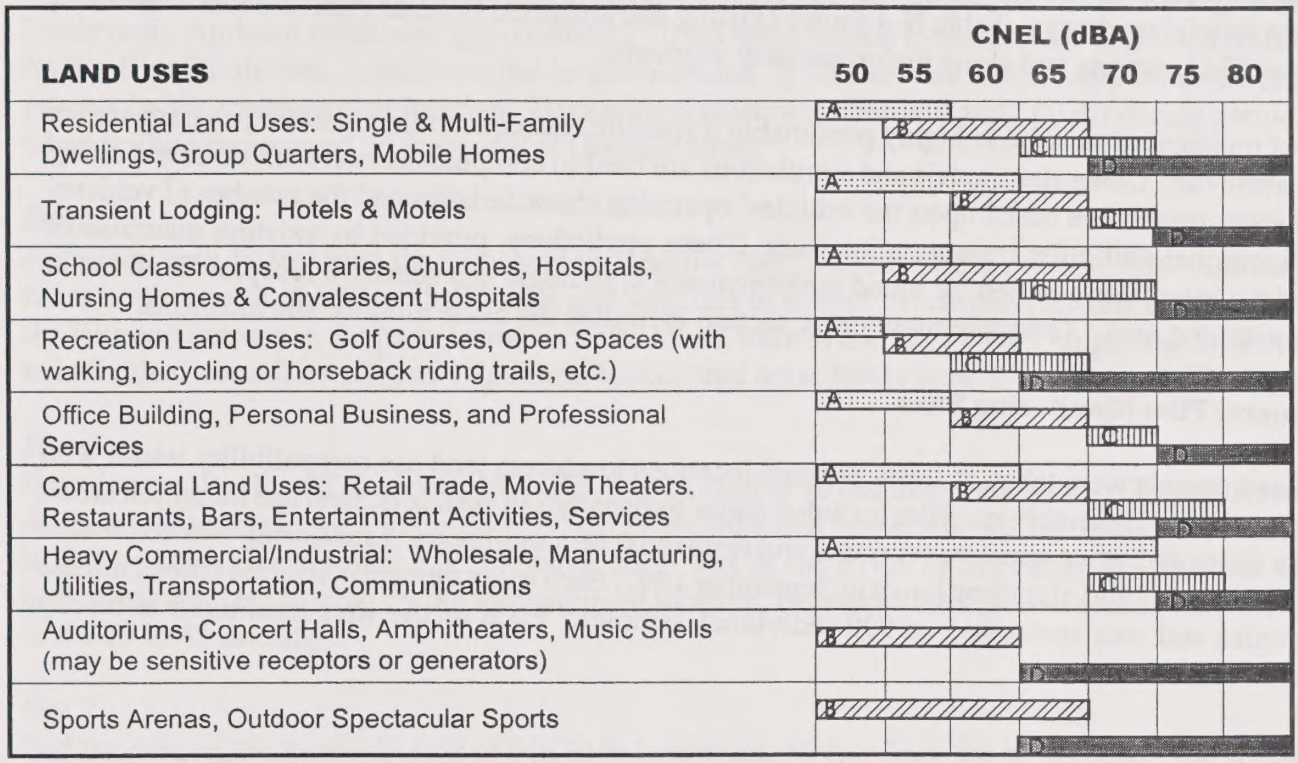
NOISE AND LAND USE COMPATIBILITY

Based upon the State's Model Noise Element, a CNEL of 65 dBA is used as a standard for maximum outdoor noise levels in residential areas and CNEL of 60 dBA is used as a standard for maximum outdoor noise levels in natural and manmade recreational outdoor environs. As discussed below, a variety of design and construction techniques are available to substantially reduce noise impacts. The compatibility of different land uses with adjacent land uses and surrounding environs is directly related to the user's sensitivity to noise and the potential for impacts to be mitigated.

Noise-sensitive land uses include residences, schools, libraries, churches, hospitals and other medical facilities. Sensitive natural and manmade environs include parks, lakes, canyons, streams, creeks, trails and other areas of outdoor activity. Uses less sensitive to excessive noise disturbances include commercial and light industrial uses, conventional hotels and motels, children's play areas, playgrounds, neighborhood ballparks, and other outdoor spectator sport arenas. Uses least sensitive to noise disturbances are heavy commercial and industrial uses, transportation, communication and

utility land uses. Table N-1 illustrates the ranges of recommended exterior noise levels for various land uses.

TABLE N - 1
COMMUNITY NOISE AND LAND USE COMPATIBILITY



Source: Federal Highway Program Manual Vol. 7, Ch. 7, Sec. 3, 1982

- Explanatory Notes -

A Normally Acceptable: With no special noise reduction requirements assuming standard construction.

B Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.

C Generally Unacceptaable: New construction is discouraged. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

D Land Use Discouraged: New construction or development should generally not be undertaken.

NOISE MEASUREMENTS AND COMPUTER MODELING: EXISTING AND PROJECTED FUTURE NOISE LEVELS

In order to understand and evaluate the impacts of land use patterns, traffic and individual developments on the noise environment within the planning area, a variety of data has been collected, sites have been monitored and existing and future impacts have been modeled. Existing conditions have been specifically monitored and assessed at various areas of special focus or concern, including in the vicinity of schools, residential neighborhoods, commercial areas and along major arterial roadways. Table N-4 shows existing and projected General Plan buildout conditions at specific locations and along major roadway segments.

Most transportation noise is highly predictable if specific data concerning operating characteristics are available. Computer models and simulations are used to compute the noise environment along transportation routes based upon the vehicles' operating characteristics and the number of vehicles utilizing that particular transportation route. These predictions, provided by existing quantitative models, have been verified by sound measurements at strategic and sensitive receptor locations in the planning area. The noise monitoring section identifies the noise monitor site locations.

General Plan Monitoring Sites

Measurements were taken at seven selected locations to address land use compatibility issues with respect to the General Plan. Sites included major transportation corridors, land use transition areas, lake shore and other sensitive receptors and residential neighborhoods. Monitoring was conducted during the day and nighttime hours in September 1997. Each measurement converted fifteen minute samples and was comprised of 900 individual samples. Each of the sites monitored is briefly described below.

Site 1
Vacant lot on the southerly side of Big Bear Boulevard, 50 feet from the centerline of the street, approximately 100 feet westerly of the intersection with Lark Trail. Ambient (average) noise levels at this location were in the 61 to 66 dB range and were due to automobile and truck traffic on Big Bear Boulevard. Intrusive noise levels were in the 73 to 76 dB range and were due to large engine individual vehicles passing by the measurement location. The nighttime background noise level was below 35 dB and minimum noise levels were 30 dB or lower during lulls between vehicles.

Site 2
Approximately 50 feet from the lake shore at the northerly end of Fisher Drive. Ambient noise levels were in the 49 to 56 dB range and were due to aircraft overflights and boating activities on the lake. Intrusive noise levels were in the 58 to 70 dB range and were due to individual aircraft overflights and occasional autos passing close to the measurement location. The nighttime background noise levels were in the 41 to 43 dB range.

Site 3
Front lawn of the Big Bear Elementary School, 50 feet from the center of Village Drive. Ambient noise was approximately 60 dB. Intrusive noise was approximately 75 dB and was due to several heavy trucks turning onto Knickerbocker Road from Village Drive.

Site 4
Front Lawn of Big Bear Middle School, approximately 50 feet from the center of Big Bear Boulevard. Ambient noise was approximately 70 dB and was due to automobile and truck traffic on Big Bear Boulevard. Intrusive noise levels exceeded 76 dB and were due to individual vehicles passing by the measurement location. Background noise was approximately 60 dB during periods when traffic was stopped by the signal at Georgia Street.

Site 5
Approximately 10 feet from the lake shore in Meadow Park, westerly of the swim lagoon. Ambient noise levels were in the 46 to 58 dB range and were due to aircraft overflights, boating activities on the lake and patrons in the park. Intrusive noise levels were in the 59 to 68 dB range and were due to individual aircraft overflights. Nighttime background noise levels were in the 40 to 53 dB range.

Site 6
Front lawn of Big Bear Community Hospital, approximately 30 feet from the center of Garstin Drive. Ambient noise levels were in the 55 to 60 dB range were due to sporadic traffic on Garstin Drive in front of the measurement site. Intrusive noise was in the 67 to 71 dB range and was due to individual vehicles passing by the measurement location. Nighttime background noise levels were in the 39 to 45 dB range.

Site 7
Parking area on the northerly side of Big Bear Boulevard, 50 feet from the centerline of the street, westerly of the end of the boardwalk. Ambient noise levels were in the 68 to 69 dB range due to traffic on Big Bear Boulevard. Intrusive noise levels were approximately 74 dB due to individual vehicles passing the measurement position. Nighttime background noise levels were in the 53 to 58 dB range.

General Plan Buildout Noise Environment

Future noise impacts to the community are expected to be primarily generated by increasing traffic volumes. From the Circulation Element, we can extract the future volumes projected on major roadways. In order to make the projected traffic noise data more accurate, the average posted speed limits and a percentage mix of light and heavy truck traffic along the roadways are included in the modeling data. This information was supplied through City and SANBAG traffic counts, counts prepared for intersection improvement analyses, and for General Plan traffic modeling. Computer modeling was used to estimate noise impacts due to the increased traffic volumes.

Table N-2
1997 and General Plan Buildout
Projected Noise Contours on Major Roadways
(Distance to CNEL Contours in Feet from Centerline)

	Current Traffic (measured in dB)				General Plan Buildout (measured in dB)			
Roadway Segment	**60**	**65**	**70**	**75**	**60**	**65**	**70**	**75**
Big Bear Blvd./Cienega to Edgemoor	431	186	73	26	651	298	127	53
Big Bear Blvd./Edgemoor to Lakeview	534	237	93	36	698	330	134	37
Big Bear Blvd./Lakeview to Village	606	268	108	41	721	340	142	59
Paine Rd./Village to Lakeview	528	234	92	34	664	314	128	55
Lakeview Dr./Big Bear to Pine Knot	528	226	92	34	645	295	122	51
Big Bear Blvd./Pine Knot to Summit	565	252	102	45	728	354	148	61
Big Bear Blvd./Summit to Moonridge	616	274	114	49	795	385	159	68
Big Bear Blvd./Moonridge to Stanfield	559	250	102	45	760	369	153	64
SR-18/Stanfield to Division	527	234	92	34	658	311	127	53
Village Dr./Big Bear to Pine Knot	88	33	--	--	133	54	--	--
Pine Knot/Big Bear to Village	131	51	--	--	175	70	28	--
Summit Blvd./Brownie to Evergreen	25	--	--	--	59	--	--	--
Moonridge Rd./Big Bear to Sunset	151	62	--	--	201	85	--	--
Moonridge Rd./south of Sunset	131	51	--	--	171	67	24	--
Fox Farm Rd./Big Bear to Starvation Flats	--	--	--	--	34	--	--	--
Fox Farm Rd./Starvation Flats to Division City of Big Bear Lake General Plan	--	--	--	--	--	--	--	--
Stanfield Cutoff/North Shore to Big Bear	47	--	--	--	272	110	44	--

It is important to note that special attention to project-specific site design may substantially reduce noise impacts below projected levels, and therefore, these estimates are considered to be conservative and unmitigated. A wide range of design criteria affecting roadway engineering and traffic noise abatement include differences in final grade between the roadbed and the top of walls, spacing of intersections, parkway widths and land configuration. Table N-2 lists the current and projected General Plan buildout noise contours along the City's major roadways.

MANAGING THE NOISE ENVIRONMENT

There are a variety of strategies available for managing the City's noise environment and preserving those qualities of peace and quiet that are essential in maintaining a high quality of life. Land use planning, transportation planning, project design mitigation, construction materials and techniques, and acoustical barriers are available strategies to mitigate noise impacts.

In areas subject to potentially significant noise impacts, site planning and design standards can be used to reduce noise impacts. Applied mitigation measures may include but not be limited to the use of buffer zones containing earthen berms, walls and landscaping between sensitive land uses and roadways or other noise sources. In addition, site planning and building orientation can provide shielding of outdoor living spaces, and windows may be oriented away from noise sources. Acoustical materials can also be incorporated into building windows and walls to attenuate outdoor noise to acceptable indoor levels.

FUTURE DIRECTIONS

Generally, the City of Big Bear Lake enjoys a relatively quiet environment consistent with its character as a resort residential community. However, the noise environment within the planning area is impacted by highway and major roadway noise sources. Future efforts to mitigate noise impacts should focus on preserving the peaceful and quiet atmosphere which residents and visitors to the community now enjoy.

Existing and future noise abatement and mitigation will have varying levels of effectiveness, depending upon the noise type and its source, site conditions, geography and land uses. Noise issues have been carefully considered in the development of the Land Use Element and land use distributions. Zoning designations provide another level of land use control, which assure appropriate uses near significant noise sources, and development standards and guidelines will reduce impacts and enhance compatibility of uses. The Circulation Element has also been designed, where possible, to protect the City's residential areas from excessive traffic noise and to assure compatible noise levels.

NOISE
GOALS, POLICIES AND PROGRAMS

GOAL N 1

Protection of the community from excessive noise levels and maintenance of a low-level noise environment complementary to and consistent with the City's role as a resort and vacation destination and high quality residential environment.

Policy N 1.1
Utilize appropriate land use and transportation planning to achieve noise compatibility between adjacent land uses and noise sources.

Program N 1.1.1
On the land use and zoning maps, designate noise-sensitive uses in areas away from noise generators, and locate noise-compatible uses near existing and future air and highway transportation noise sources, to the extent feasible.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1998 and ongoing

Program N 1.1.2
Designate primary truck routes and clearly mark those routes through the City; these routes should be limited to Highway 18 and major arterials.
Responsible Agency: Planning and Public Works Divisions, with City Council approval
Schedule: Ongoing

Program N 1.1.3
In planning for circulation, design a road network which routes the majority of through traffic along arterial roads and the highway, and preserves the residential character of neighborhoods by routing traffic around these areas.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: 1998 and ongoing

Program N 1.1.4
Protect from intrusion of new noise sources those areas which have value to the community because of their scenic beauty, resource conservation, viewshed, residential character, or other amenity considered to be important to the City.
Responsible Agency: Planning Division through the development review process, and reviewing authority.
Schedule: Ongoing

Policy N 1.2
Ensure that existing and potential noise impacts are identified and mitigated to non-significant levels through environmental review and assure compliance with mitigation measures for new development projects.

Program N 1.2.1
Review new land use proposals with respect to potential noise impacts pursuant to the California Environmental Quality Act.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Program N 1.2.2
Monitor noise sources within the community, including Big Bear Airport; revise land use plans and noise standards as needed to ensure that noise impacts are mitigated, and coordinate with Big Bear Airport and the FAA to establish and update policies for reduction of noise impacts to the community.
Responsible Agency: Planning Division
Schedule: Ongoing

Program N 1.2.3
Require that interior noise levels for residential development do not exceed 45 CNEL, and require additional noise attenuation measures on individual projects as needed which may include but are not limited to double-paned windows, insulation, sound walls, berms, window placement and building orientation.
Responsible Agency: Planning and Building and Safety Divisions, and reviewing authority
Schedule: Ongoing

Program N 1.2.4
For projects on which additional acoustical analysis is required prior to approval, provide an outline of the minimum requirements for noise studies, including an analysis of project impacts and proposed mitigation measures, and analysis of the effectiveness of the proposed mitigation.
Responsible Agency: Planning Division
Schedule: Ongoing

Program N 1.2.5
Regulate production of noise within the City by adopting and enforcing a Noise Ordinance, which may include but not be limited to the following issues:

A. Noise levels and hours of operation for sound from entertainment venues, outdoor stadiums, special events, amphitheaters, stages, pavilions, tents, or other outdoor activities which have the potential for creation of noise above the normal ambient level;
B. Noise levels for equipment or machinery where it has the potential to adversely impact adjacent noise-sensitive uses;

C. Regulations for location and operation of construction staging areas, which should be located away from adjacent sensitive uses, with construction activities limited to the hours of 7:00 a.m. to 7:00 p.m.;

D. Noise regulations for various activities may vary based upon time of day, and may be based upon a one-hour noise level rather than the 24-hour community noise equivalency level; and

E. Audible alarms on houses and vehicles, addressing duration and decibel level.

Responsible Agency: Planning Division for ordinance preparation; Planning Commission and City Council for ordinance adoption; Code Compliance Division for implementation.
Schedule: Adoption FY 1999-2000; implementation ongoing

Policy N 1.3
Coordinate with other agencies having jurisdiction over noise sources which impact the City, to seek cooperation on reasonable mitigation of these impacts.

Program N 1.3.1
Coordinate with Big Bear Airport District to seek cooperation on flight controls to mitigate noise impacts on sensitive uses within the overflight area.
Responsible Agency: Planning Division, Code Compliance Division
Schedule: Ongoing

Program N 1.3.2
Coordinate with the Municipal Water District to seek cooperation on water craft controls to mitigate noise impacts on sensitive uses around Big Bear Lake.
Responsible Agency: Planning Division, Code Compliance Division

Program N 1.3.3
Coordinate with owners of mountain resorts to encourage the use of best available technology for use of snowmaking equipment in order to mitigate noise impacts to the community.
Responsible Agency: Planning Division, Code Compliance Division
Schedule: Ongoing

OPEN SPACE, PARKS AND RECREATION ELEMENT

OPEN SPACE, PARKS AND RECREATION ELEMENT

PURPOSE

The Open Space, Parks, and Recreation Element addresses the need for the preservation of open space lands and conservation and thoughtful management of natural assets, including watersheds, wildlife habitat and scenic resources. The Element also addresses the City's existing and future system of parks, recreation, trails and bikeways.

It is the intent of this Element to define and establish open space, park and recreation needs and opportunities, so as to determine how these important assets may be most effectively preserved, expanded and managed. The policies and programs are strategies to achieve long term success in these efforts, both by the City and in cooperation with other agencies such as the Big Bear Valley Recreation and Park District.

OPEN SPACE

There are no areas designated on the land use or zoning maps as open space or "greenbelt" within the City currently (1998). However, open space has been included in some development projects as a mitigation measure for biological resource conservation. In addition, the appearance of open space is provided through land use districts that allow primarily recreational development, limited development within flood plains, and adopted development standards that require a percentage of developed parcels be maintained as landscaped open space. Along with preserving the natural environment, open space areas have been publicly and privately developed to provide recreational opportunities. These include the creation of such facilities as public parks as well as recreational development adjacent to the Lake and within the San Bernardino National Forest.

Flood Plains as Open Space

The Federal Emergency Management Administration, in conjunction with the National Flood Insurance Program has designated the City's special flood hazard areas subject to 100 year flood inundation. The City's most significant floodway is located adjacent to Rathbun Creek. South of Clubview Drive, the floodway more or less corresponds to the PR zone and is primarily used for golfing in the summer and snow play activities in the winter. Development in this area has been subject to public controversy as the floodway provides approximately fifty acres of natural open space, as well as vistas towards the surrounding peaks. In other areas of the City, properties in the Flood Hazard Districts (H-1 and H-2), areas that are prone to flooding, have remained largely undeveloped.

Development Standards

The City's Development Code requires open space preservation on individual parcels. In most land use districts, only a percentage of the property may be developed, while the balance of the site must

be preserved in an undeveloped condition which may include landscaping. As residential development proposals and subdivisions are brought to the City for approval, the City may also require the designation of specific areas within the project for open space.

The Village Specific Plan contains open space and building coverage requirements intended to increase the appearance of open space. The Village Specific Plan includes a proposed extensive system of pedestrian trails and park nodes to enhance the pedestrian orientation of the area.

In the China Gardens subarea of the Moonridge Specific Plan, a master plan is required in order to ensure proper development of the lakeside. Specific Plan policies also include development of a community park, lakeside development oriented to maximize the visual and physical properties of the water, siting sensitive to the biological characteristics of Rathbun Creek, and preservation of an area around the Creek's delta in its natural state.

Other Open Space

Several areas both within and near the City have been set aside as open space for conservation purposes. Over 1300 acres have been set aside near Baldwin Lake, including a 300-acre reserve owned by the State of California and 1000 acres at the southeast end of the lake which have been acquired for conservation use by the Natural Heritage Foundation (NHF). NHF also owns or controls several sites within the City limits for wildlife conservation, including the Stanfield Marsh area (148 acres); the Moonridge pebble plains area (12 acres); and Rathbun Creek area (3 acres). NHF is planning to purchase additional acreage on which the endangered Sidalcea pedata is found for protection of this plant.

In addition, open space has been set aside within several private development projects for purposes of biological mitigation. Within Eagle Point Estates, 10.7 acres have been included in non-buildable lettered lots, and the Castle Glen development (Tract 12488) set aside 129 acres in lettered lots for conservation. This land is currently maintained by the Natural Heritage Foundation to ensure protection of sensitive species and habitat, and provides passive open space and recreational opportunities as well.

The City has also acquired land which is currently used for open space, including Boulder Bay (3 acres) and land adjacent to the Civic Center (14 acres). Future plans for Civic Center expansion will include preservation of open space within this area, and future plans for Boulder Bay include parking, landscaping and lake-oriented recreation facilities.

These efforts indicate a substantial commitment by the community to preserve open space for biological resource preservation, as well as passive recreational purposes. The City will continue working with NHF and other agencies as appropriate to ensure that open space conservation remains an important objective in future planning.

PARKS AND RECREATIONAL DEVELOPMENT

Within the City limits there are a number of public and private park and recreational facilities, which are listed on Table OPR-1 and discussed below.

Table OPR-1
Park and Recreation Facilities Located in the City of Big Bear Lake

Facility	Owner/Responsible Agency	Size
Parks:		
Meadow Park	Recreation and Parks District	16.25 acres
Moonridge Animal Park	Recreation and Parks District	2.7 acres
Rotary Pine Knot Park	City of Big Bear Lake	2 acres
Ski Resorts:		
Bear Mountain	Private	145 acres
Snow Summit	Private	620 acres
Athletic Facilities:		
Football Field	School District	N/A
Softball Field	School District	N/A
Other Recreation:		
Big Bear Lake	Municipal Water District	2,971 acres
Alpine Trout Lake	Private	2 acres
Bear Mtn. Golf Course	Private	43 acres
Magic Mountain	Private	13 acres
Boulder Bay	City of Big Bear Lake	3 acres

Public Parks

The Big Bear Valley Recreation and Parks District has jurisdiction over park facilities in the City and surrounding Valley. The City falls within two of the District's zones: Big Bear Lake and Moonridge. The District cooperates with a variety of local service providers, including the USDA Forest Service, the Bear Valley Unified School District, the Community Services District, Community Services Area 53, the City of Big Bear Lake, and the Municipal Water District. Funding for the District's facilities is provided by a portion of the property tax that goes to the County, private donations, and fees and charges for facility use. Two facilities operated by the District are within the City limits: Meadow Park and the Moonridge Animal Park.

Meadow Park
Meadow Park is located adjacent to the lake on approximately 16.25 acres within City limits. It is the largest and most comprehensive community park in the Big Bear Valley. Meadow Park includes District offices, two baseball diamonds with a snack bar and announcer's booth, a t-ball diamond,

a multipurpose play field, a tot lot and larger playground, gymnasium, three tennis courts, one volleyball sand pit, picnic tables, and barbecues. Located within an artificial cove along the lake, the Park also has a white sand swim beach with a lifeguard stand, snack bar, and picnic area. There are also two historical cabins in the park for visitors to view.

Moonridge Animal Park
The Moonridge Animal Park, which is the only zoo in San Bernardino County, is located on private property at 43285 Moonridge Road across the street from Bear Mountain's base area. The Animal Park has accepted injured, abandoned, or confiscated animals for thirty years. Located on 2.7 acres, it houses twenty-two mammals and fifteen birds, including American bald eagles, timber wolves, and buffalo. The Animal Park welcomes approximately 65,000 visitors per year. Recent improvements include a Visitors Center and a grizzly bear habitat housing three (3) grizzlies.

The District's future plans could include the construction of naturalistic, spacious, and aesthetically pleasing exhibits, and cooperative teaching programs aimed at endangered North American species. For a number of years, the District has sought to relocate the Moonridge Animal Park in order to meet these objectives. Public opposition to site selections has lengthened the relocation process.

Park District Master Plan

In 1988, the District adopted a Ten Year Master Plan based on a community needs assessment and national standards. The District's acquisition objective, based on the Plan, is an additional 8.95 acres within the City of Big Bear Lake. The District has also determined a future need for additional picnic areas, sports fields, a tot lot and open play areas, shoreline and fishing access, sand volleyball areas, and open space linkages. The District recently upgraded Meadow Park by providing additional parking and accommodations for disabled users. The addition of a ski beach is also projected in the future.

City Parks

Rotary Pine Knot Park
Rotary Pine Knot Park, dedicated in 1992, is a public park owned and operated by the City of Big Bear Lake. The park is located on approximately two lakefront acres at the end of Pine Knot Avenue in the Village Specific Plan area. The Evening Rotary Club undertook construction of the park as a volunteer community service effort, donating the park furniture and some of the landscaping. Rotary Pine Knot Park was conceived primarily as a neighborhood "green space." The park includes a formal garden, public restroom, picnic and play areas. The City has considered expanding the park in the future by purchasing the adjacent Post Office parcel, and possibly retaining the Post Office building for use as a youth and recreation center (Capital Improvement Project #44). The City has also considered adding a courtesy dock and/or fishing pier to the lakefront area but no plans have been officially adopted.

Boulder Bay
In 1996, the City purchased approximately 3 acres of unimproved property located on the north side of Big Bear Boulevard adjacent to the Boulder Bay area of Big Bear Lake for development of a lakeside park. The property currently contains a dirt parking area where people can pull off the highway and view the lake. Future plans call for construction of a paved parking area, installation of landscaping and irrigation, a picnic area and restrooms, and possibly a boat launch site.

US Forest Service Parks, Campgrounds, Open Space and Conservation Areas

The following discussion addresses facilities operated by the USDA Forest Service. Although outside the City, these facilities also contribute to the recreational opportunities for residents and visitors.

The San Bernardino National Forest, which surrounds the City, provides a significant open space and recreational amenity. There are several picnic grounds and campgrounds nearby operated by the US Department of Agriculture, Forest Service, Big Bear Ranger District. These include the Aspen Glen Picnic Area, a year-round site located on Mill Creek Road, close to the Civic Center. The picnic area includes parking for 8 vehicles, picnic tables, barbecues, handicapped-accessible restroom facilities and access to hiking trails. The Grout Bay Picnic Area, is located on the north shore of Big Bear Lake, 1/4 mile west of Fawnskin on Highway 38 several miles beyond City limits. The picnic area includes parking for 23 vehicles, picnic tables, barbecues, water, restroom facilities and access to hiking trails. Meadow's Edge Picnic Area is located on the north shore of Big Bear Lake, just west of Division Road on Highway 38 several miles beyond City limits. The area includes picnic tables, barbecues, water, restroom facilities and access to hiking trails. Serrano Campground is located on the north shore of Big Bear Lake, just west of Division Road on Highway 38 several miles beyond City limits. The camping area includes 132 campsites, showers, water, restroom facilities and access to the Cougar Crest trailhead that leads to the Pacific Crest National Scenic Trail. This camp is open from May through November. Pineknot Campground is located on Summit Boulevard, adjacent to Snow Summit Ski Resort, just beyond City limits. The camping area includes (48) campsites, water, restroom facilities and close proximity to hiking trails. This camp is open from May through October.

Nearby interpretive areas include the Lodgepole Pine Trail adjacent to Castlerock, the City's western limits, the Woodland Trail designed by Forest volunteers, and the Gold Fever Auto Tour, which takes drivers over unpaved forest roads to discover the mining history of Holcomb Valley. The Alpine Pedal Path, a two mile path along the North Shore of Big Bear Lake, is used heavily by walkers, joggers, and bicyclists. Hiking trails and off-highway vehicle routes within the ranger district also provide access to the Pacific Crest National Scenic Trail, with trail camps located north of Big Bear Lake at Little Bear Springs, Tanglewood (on Gold Mountain), and Doble, in addition to Deer Springs, located southeast of Erwin Lake.

The Forest Service has developed a Discovery Center located on the North Shore of Big Bear Lake on Highway 38 in proximity to Serrano Campground and about 1/4 mile west of the Big Bear Ranger

District offices. This new visitor center provides information on Forest Service and other community recreational activities, interpretive and educational programs, community rooms for special events, and a book sales and gift store. Future plans include an exhibition space. The project is expected to cover twelve acres.

Big Bear Lake

The City of Big Bear Lake is located along the southern shore of Big Bear Lake. The lake was originally created as an irrigation reservoir for agricultural purposes in the Redlands and San Bernardino area. The lake is 2,971 surface acres in size, with a storage capacity of 73,000 acre feet, and about 23 miles of scenic shoreline.

There are seventeen (17) possible master marina permits issued by MWD for Big Bear Lake, and seven active permits. Privately owned marinas offer spring and summer recreational boating, as well as jet skiing, canoe rentals, boat slip rentals, and lake landing access.

Ski Resorts

There are two ski resorts operating under US Forest Service permits with base areas located within the City of Big Bear Lake: Bear Mountain and Snow Summit. A third resort, Snow Forest, with a base area that was located at the southern end of Pine Knot Avenue in proximity to the Village, is no longer in operation. The operating ski resorts are a major Southern California recreational attraction.

Bear Mountain Ski Resort
Bear Mountain ski resort consists of approximately 145 acres. Facilities include eleven chair lifts, a snowboard park, ski rental shop, ski shop, ski school, cafeteria, bar, snack bar, first aid room and barbecues. Bear Mountain's season typically runs from November through April, with a daily capacity of 9,600 skiers.

Snow Summit Ski Resort
Snow Summit ski resort is located on approximately 620 acres (230 skiable) with base facilities located within the City limits. The facility has a capacity for 6,500 skiers at one time. The resort's facilities include ski lifts, a ski rental shop, ski shop, ski school, cafeteria, bar, snack bar, first aid room and barbecues. Summer facilities include a mountain bike rental/pro shop. Snow Summit's ski season typically runs from November through April, with trails opening up for mountain bike activities from May through October. A scenic chair lift is also in operation during the summer.

Other Recreation Facilities

Alpine Trout Lake
The lake, adjacent to Rathbun Creek on a 2.5 acre site, includes a 1 acre pond, picnic tables, barbecues, and a snack bar.

Bear Mountain Golf Course
The Bear Mountain Golf Course is a nine hole course covering 43 acres and a driving range. Future improvements may include adding an additional 9 holes, a clubhouse with a restaurant, bar and catering service, as well as a jogging and bike path around the course.

Magic Mountain
Magic Mountain is a privately run, year-round recreation area located on 13 acres on the western side of the City. In the summer, miniature golf, go-carts, and a water slide are available. Winter activities include a scenic chair lift and an alpine slide, with all forms of snow playing available.

Big Bear Valley Recreation and Parks District and School District Facilities

The Recreation and Parks District and the School District both have a number of recreational facilities. These are depicted on Exhibit OPR-1.

FUTURE DIRECTIONS

State law allows a city to set local standards for park land in relation to population, to ensure that new development mitigates its impacts on park facilities and to help the city set budget priorities for park land acquisition and development. The Quimby Act (Section 66477 of Title 7 of the California Government Code) allows a city to adopt a standard of 3 to 5 acres of park land per 1000 residents, and to require dedication of land or in-lieu fees to meet this standard, by local ordinance. If the City adopted a standard of 3 acres of developed park land per 1000 permanent residents, the existing need would be 18 acres for a permanent population of approximately 6,000. This need is currently being met by the provision of Meadow Park (16.25 acres), Moonridge Zoo (2.7 acres) and Rotary Pine Knot Park (2 acres). However, if all the City's residential units were occupied by permanent residents, a total of approximately 63 acres of park lands would be required to meet State standards. Based on the current land use map and the assumption that all housing units are permanently occupied, the City would require 81 acres of park land at buildout of this General Plan. In addition, advisory groups within the community have identified the need for additional facilities to meet the needs of local residents, including play fields, a swimming pool, improved lake access and other facilities. Therefore, there is a need for the City to work with the Park and Recreation District to plan for expansion of facilities and construction and funding of new facilities to meet the City's current and future needs.

The City's Capital Improvement Program lists parkland acquisition and improvements, including Metcalf Park, Civic Center Park, Village Center Park, a shoreline jogging trail and bike path, and a number of access nodes to the lake, primarily for pedestrian access. These projects would help the City to add to its parkland amenities. Funding for these projects could come from a number of sources, including land donations, State and federal grants, the imposition of Quimby Act development fees, the City's general fund or a combination of City and Park District funding, as appropriate.

CITY OF BIG BEAR LAKE
GENERAL PLAN

EXHIBIT OPR-1
BIG BEAR VALLEY RECREATION AND PARK FACILITIES

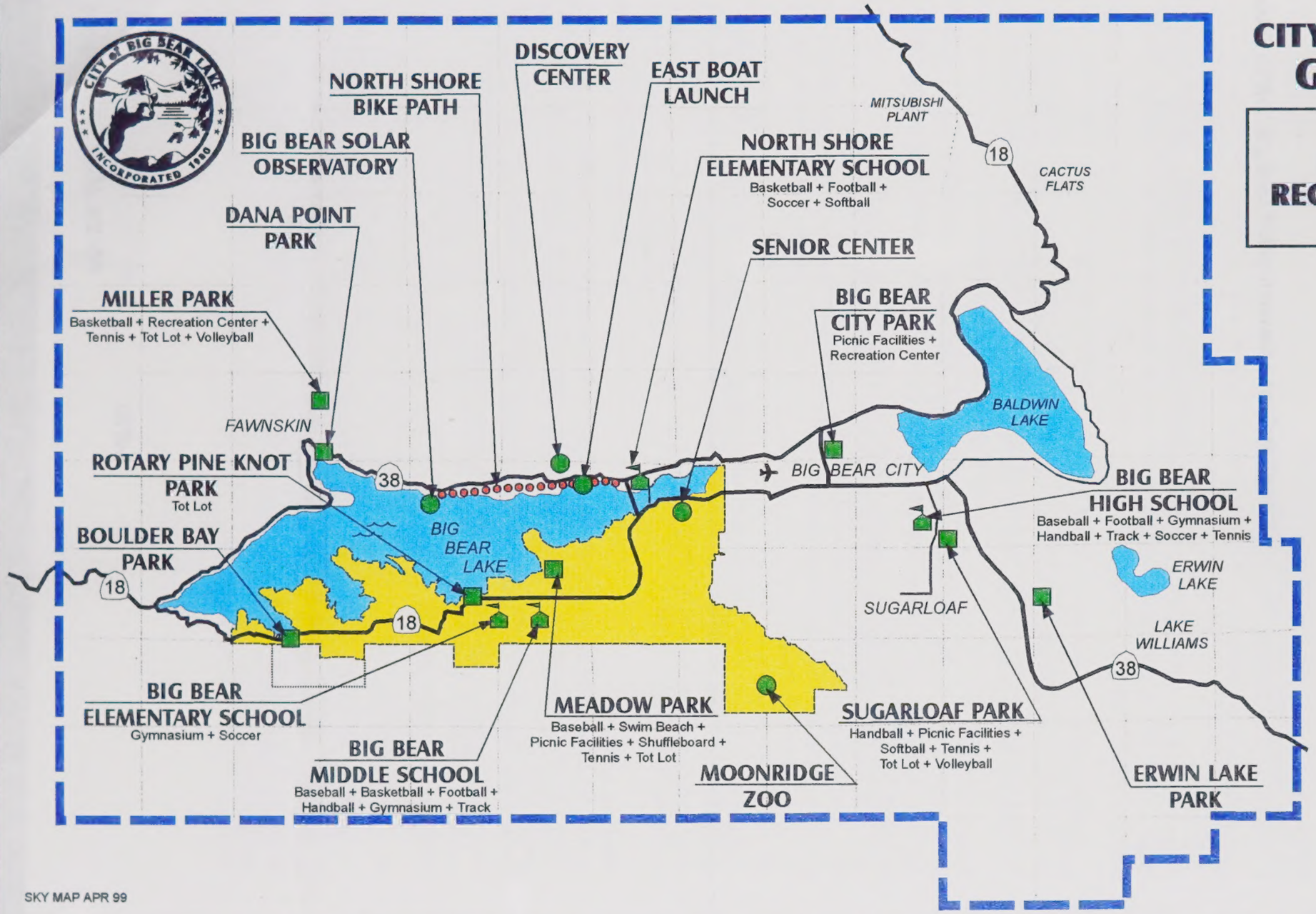


EXHIBIT OPR-1

Exhibit OPR-1: Big Bear Valley Recreation and Park Facilities

OPEN SPACE, PARKS AND RECREATION GOALS, POLICIES AND PROGRAMS

GOAL OPR 1

An expanded, high-quality system of public parks and recreational facilities that support a broad range of activities to meet the active and passive public recreation needs of current and future residents and visitors.

Policy OPR 1.1
To encourage and, if necessary, construct appropriate, high quality public park and recreational facilities that improve and expand the range of recreational activities available within the valley.

Program OPR 1.1.1
In cooperation with the Big Bear Valley Recreation and Park District and other appropriate public agencies and private enterprise, assist in providing facilities to enhance recreational opportunities, including but not limited to:

a) A four-field baseball, softball and soccer complex within the valley;
b) At least two lighted fields for adult softball;
c) A public swimming pool--year-round;
d) A skateboard park;
e) Basketball courts.

Responsible Agency: City Council to determine funding source; Planning Division to assist in park planning; Engineering, Public Works, and Building and Safety Divisions to assist with site development and construction as needed.
Schedule: As funding permits

Program OPR 1.1.2
Investigate and coordinate development of a Village "green" as an active open space area within the Village Retail District of the Village Specific Plan area to be used for community activities and special events.
Responsible Agency: City staff to evaluate financial and planning feasibility, City Council to determine funding availability, City to work with Village businesses and property owners for funding, construction and maintenance
Schedule: As funding permits

Program OPR 1.1.3
In cooperation with the County of San Bernardino, U. S. Forest Service and private enterprise, establish an 18-hole professional golf course in the Big Bear Valley.
Responsible Agency: City staff to evaluate financial and planning feasibility, City Council to determine funding availability, City to work with other agencies on funding, construction and maintenance
Schedule: As funding permits

Program OPR 1.1.4
Assist the Big Bear Valley Recreation and Park District and other local organizations or businesses to establish an "Adopt-a-Park" program to fund, maintain and staff local recreational programs and new park facilities and equipment.
Responsible Party: Planning and Finance Divisions
Schedule: 1999 and ongoing

Program OPR 1.1.5
In cooperation with the Municipal Water District and other appropriate agencies, evaluate the need for additional and/or improved public access to the lake within the City, and upgrade access points where reasonable and feasible as funding permits.
Responsible Agency: Planning Division to evaluate access points and prepare plan for upgrades; City Council to determine funding availability and priority.
Schedule: Plan preparation 1999; construction as funding permits

Program OPR 1.1.6
In cooperation with other public agencies, investigate, monitor, and determine local public recreational needs through periodic surveys.
Responsible Agency: Film/Public Information Office
Schedule: Periodically as needed

Program OPR 1.1.7
Assist the Big Bear Valley Recreation and Park District in finding a permanent, expanded home for the Moonridge Zoo Animal Park.
Responsible Agency: City Manager's Office, Planning Division in cooperation with Big Bear Valley Recreation and Park District
Schedule: Ongoing as needed

Policy OPR 1.2
Explore various means of acquiring or facilitating additional park and recreation facilities and seek creative and flexible techniques to accomplish City goals, which may include but are not limited to the following strategies:

a. Where appropriate, remodel or recycle existing vacant buildings, such as large retail or industrial buildings, for recreation uses.
b. Where feasible, encourage the joint use of park and recreation facilities with flood control facilities, school facilities, or other joint public use to maximize benefits and share costs of infrastructure, parking and access.
c. Consider developing park and recreational facilities jointly with non-profit incorporated recreation organizations and service clubs, to assist in meeting City residents' needs for recreational opportunities.
d. Seek opportunities to help develop regional parks or recreational facilities which provide recreational benefits to a wide range of residents and visitors through cooperation with other agencies.

e. Consider non-traditional types of parks such as linear parks along drainage courses and utility easements where appropriate, which may include pedestrian paths, bikeways or fitness courses, and improvements to lake-front public access points.
f. Consider inclusion of tot lots or pocket parks within larger residential developments and multi-family developments to provide neighborhood recreation amenities.
g. Facilitate development and/or expansion of specialty parks such as an amphitheater or nature center.
h. In cooperation with other public agencies and private developers, investigate sources of land and funding from private and public sources to expand recreation facilities and programs.
i. Evaluate alternatives for coordinated provision of park and recreation services throughout the Valley.
j. Consider adoption of an in-lieu park impact fee program to allow major development projects to contribute fees for park mitigation in lieu of land dedication, pursuant to the Quimby act and/or City ordinance.

Program OPR 1.2.1 Seek opportunities for park and recreational facility development, evaluate feasibility and prepare plans and budgets as appropriate.
Responsible Agency: Planning Division, City Manager's Office
Schedule: Ongoing

Policy OPR 1.3 Encourage and cooperate with the development of appropriate, high-quality private recreational facilities in the City that improve and expand the activities available for residents and visitors, while maintaining the City's image as a family-oriented vacation destination.

Program OPR 1.3.1 Fast-track development proposals for private recreational facilities meeting the intent of this policy to the extent permitted by law, and provide a City staff member as liaison to assist in the entitlement, plan check and construction inspection process, including assistance in coordination with other agencies as needed.
Responsible Agency: Planning, Building and Safety, Engineering Divisions and City Manager's Office
Schedule: As needed and ongoing

Policy OPR 1.4
Ensure that City park, recreation and cultural facilities are accessible to all citizens, through the following measures:
a. Incorporate design features required by the Americans With Disabilities Act which improve access to facilities for handicapped citizens;
b. Where necessary, retrofit existing facilities to achieve compliance with the provisions of the Americans With Disabilities Act for parking and access;
c. To the extent practical, provide playground equipment which provides recreational opportunities to handicapped children within City playgrounds and provide features such as trails and signs for persons who are visually impaired and park structures which accommodate persons confined to wheelchairs;

d. Where appropriate, provide park facilities which meet the recreational needs of senior residents;
e. Ensure that park and recreation facilities are designed to promote the safety of all park users by incorporating features which discourage crime.

Program OPR 1.4.1
Review existing park and recreational facilities and plans for new facilities to ensure compliance with state and federal accessibility requirements.
Responsible Agency: Planning and Building and Safety Divisions, during planning and plan check processes
Schedule: As plans are prepared and reviewed

Policy 1.5
Seek public input on design of new parks and recreational facilities in the City, through the following means:
a. Prior to construction of new facilities provide opportunities for public input, including but not limited to informal meetings with neighborhood groups, coordination with community organizations and final approval by the City Council;
b. Consult with non-profit incorporated recreation organizations to ensure that park designs incorporate, to the extent feasible, facilities which meet the goals of these recreation providers;
c. Coordinate with local business organizations, including the Chamber of Commerce and the Resort Association, to inform them of proposed City actions.

Program OPR 1.5.1
Schedule and advertise public meetings and workshops on new park development proposals, as appropriate.
Responsible Party: Planning Division during design and review phases of facility planning
Schedule: Ongoing as needed

Policy OPR 1.6
Consider the following criteria when evaluating future sites for acquisition or improvement as park and recreation facilities:
a. Access. Community parks/facilities should have access from major or secondary arterial roadways. Neighborhood parks should have access from secondary or collector roadways. Mini-parks or pocket parks and tot lots may be accessed from local streets or cul-de-sacs. Park sites shall be located to provide maximum accessibility from the areas to be served.
b. Infrastructure availability. Park sites should be located in proximity to utility connections.
c. Size. Park sites should be of adequate size to accommodate the facilities needed within the area to be served, along with adequate setbacks and parking.
d. Suitable Terrain. Natural terrain of the proposed site should be such that the site can be developed without requiring extensive grading or recontouring of the natural topography.

e. Land Use. Sites should be compatible with surrounding land uses and in conformance with adopted local and regional plans.
f. Neighborhood acceptance. The proposed park shall be compatible with the existing neighborhood in that it should provide recreational amenities which are suitable to and acceptable to a consensus of the neighborhood.
g. Cost. The cost and method of acquisition shall be evaluated, including cost of construction and long-term maintenance, if applicable.

Program OPR 1.6.1
Evaluate proposed park and recreation sites based upon these criteria, and report to the City Council prior to any decision on funding or acquisition of sites.
Responsible Party: Planning Division
Schedule: Ongoing as needed

Policy OPR 1.7
Establish a desired service level of active parkland to serve the needs of the permanent resident population of the City, of 3 acres per 1000 population (assuming a 50 percent occupancy rate for residential structures), which may be met by a combination of facilities provided by the City, Big Bear Valley Recreation and Park District, and other agencies provided that facilities are accessible to the general public.

Program OPR 1.7.1
Evaluate new development proposals for impacts on park facilities based upon this policy, and require mitigation as appropriate.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Program OPR 1.7.2
During annual review of the Capital Improvement Program, review existing park facilities with respect to this policy and consider strategies to meet parkland goals.
Responsible Agency: City Manager and City Council
Schedule: Annually and ongoing

Policy OPR 1.8
The City shall preserve and enhance public access to Big Bear Lake, while protecting adjacent neighborhoods from intrusive and incompatible uses and maximizing the use of City resources, through the following means:
a. Review and evaluate the 33 existing public lake access points within the City to determine the feasibility and cost of improving these areas;
b. Design lake access point improvement projects to serve the largest number of users in the most appropriate locations;
c. Restrict vehicular parking at lakefront access points within residential neighborhoods;

d. Provide pedestrian and bicycle access to lakefront access points through the Master Plan for Trails or other means as appropriate;
e. Evaluate and install improvements in these locations as appropriate, which may include but not be limited to benches, trash receptacles, bicycle racks, lighting, informational signs or other similar features;
f. Dispose of surplus property as appropriate.

Program OPR 1.8.1 Develop a plan for improving public lakefront access points incorporating the policies listed above, adopt and implement the plan as funding allows.
Responsible Agency: Planning Division in cooperation with other departments and agencies as needed for plan preparation; City Council to determine funding priorities and implementation schedule in conjunction with approval of the Capital Improvement Program
Schedule: Plan preparation FY 1999-2000; implementation as funding permits

GOAL OPR 2

A coordinated system of bicycle trails and all-purpose recreational trails which are interconnected and which link to a regional trail system, to provide alternate travel modes within the City and enhance recreational opportunities for biking, hiking and, where appropriate, equestrian uses.

Policy OPR 2.1

The City shall develop, adopt and implement a Master Plan for Trails which incorporates the following features:

a. Bikeways. The Master Plan for Trails shall address bicycle transportation both as an alternate travel mode and for recreational purposes, including both on-street bike lanes (striped or unstriped) and separated bicycle paths. In particular, the plan shall evaluate the feasibility of creating a bicycle trail which passes as close as possible to Big Bear Lake, which may include both the lake frontage or parallel surface streets to create the most feasible route. Additionally, this portion of the Master Plan for Trails shall evaluate the feasibility of providing a bikeway in or adjacent to Big Bear Boulevard throughout the City limits, in cooperation with Caltrans.
b. Hiking, Mountain Biking and All-Purpose Trails, excluding motorized off-road vehicles. The Master Plan for Trails shall include design standards and locations for all-purpose recreational trails, which need not be paved but should be properly graded and compacted for erosion control and maintenance purposes. However, it is not the City's intent to develop a trail system for motorized vehicles within the City limits.
c. Equestrian Trails. The Master Plan for Trails should delineate routes appropriate to convey riding horses from the commercial stables within the City to equestrian trails within adjacent non-urbanized areas, including those within the U. S. Forest Service boundaries; however, it is not the City's intent to provide a network of equestrian trails within the urbanized portions of the City.

d. Connectivity. The Master Plan, when developed, shall ensure that trails are interconnected with other City, County and regional trails to the extent practical, to create a trail network providing the maximum flexibility for users.
e. Public Input. Input from local recreation user groups such as bicycle and hiking associations and other interested parties shall be solicited in preparation of the Master Plan, either through formation of an advisory committee or through public workshops.
f. Review of Existing Plans. The Master Plan shall include a review of the feasibility of existing trail plans within the City, including the proposed Rathbun Creek Trail as envisioned within the Moonridge Specific Plan, and shall incorporate any needed revisions to these plans.
g. Focal points and activity areas. The Master Plan shall consider primary focal points and activity areas within the City and provide trail connections between them as appropriate (for example, a trail connection should be provided to link Rotary Pine Knot Park to Meadow Park, if feasible).

Program OPR 2.1.1 Prepare and adopt a Master Plan for Trails.
Responsible Agency: Plan preparation: Planning Division, based on public input and in cooperation with other agencies as needed. Plan adoption: Planning Commission and City Council
Schedule: FY 2001-02

Program OPR 2.1.2 Seek funding sources for implementation of the Master Plan for Trails, including grants.
Responsible Agency: Planning Division
Schedule: Begin upon plan adoption, and ongoing

GOAL OPR 3

Preservation of open space areas within the City that are necessary to protect critical habitat areas, protect scenic views, provide passive recreational opportunities and/or enhance the aesthetic character of the community.

Policy OPR 3.1
Strongly encourage cooperation between the private sector and public agencies to appropriately manage our land and water resources to achieve a reasonable balance between the preservation of significant environmental resources and private and public development.

Program OPR 3.1.1
Support the Municipal Water District in developing and operating its Stanfield Marsh Waterfowl/Wildlife Habitat Improvement Project.
Responsible Agency: City Manager's Office, Planning Division, in cooperation with the Municipal Water District, and appropriate conservation organizations.
Schedule: Ongoing

Program OPR 3.1.2
Work with the Natural Heritage Foundation, University of Redlands and other available data sources as appropriate to obtain current information on plant and wildlife communities within the planning area, for use in discretionary review of development projects with respect to open space and conservation requirements.
Responsible Agency: Planning Division to compile information and incorporate into CEQA documents for new development proposals
Schedule: Ongoing

Program OPR 3.1.3
Assist the Natural Heritage Foundation and other appropriate conservation organizations to preserve environmentally sensitive open space and conservation of lands and to identify funding mechanisms for acquisition and maintenance of this land.
Responsible Party: City Manager's Office, Planning and Finance Divisions
Schedule: Ongoing

Policy OPR 3.2
Provide adequate protection of environmentally sensitive habitat areas and open space as new development occurs.

Program OPR 3.2.1
The City shall review all proposed development projects with respect to impacts on biological resources and open space requirements pursuant to the California Environmental Quality Act, and shall require mitigation as appropriate.
Responsibility: Planning Division and reviewing authority
Schedule: Ongoing

Policy OPR 3.3
Designate natural hazard areas as open space when development in these areas cannot feasibly occur to protect public health, safety and welfare.

Program OPR 3.3.1
On the Land Use Map, delineate active fault zones, flood ways and flood plains where development cannot feasibly occur and designate these areas as open space, allowing recreational uses where appropriate.
Responsibility: Planning Division in preparing draft land use map; City Council adoption
Schedule: 1998

Policy OPR 3.4
Consider the acquisition of property as open space if the property would meet the City's land use and environmental goals, and if such action would meet one or more of the following criteria:

a. The property is located within a scenic viewshed or corridor, and its preservation as open space would provide an aesthetic value to the community and/or the surrounding neighborhood;
b. The property is the site of sensitive or protected habitat or species, and its preservation as open space would preserve important biological resources;
c. The property provides access and/or views to Big Bear Lake, and its preservation as open space would enhance public use and/or appreciation of the Lake;
d. The property provides an important corridor linking habitat or resource areas, such as a drainage course, a wildlife corridor, a regional trail system, or other similar feature.

Program OPR 3.4.1
Evaluate proposed property acquisitions for open space purposes with respect to the above-listed criteria when determining the conformity of any proposed acquisition with the General Plan.
Responsible Agency: Planning Division, Planning Commission, City Council
Schedule: Ongoing, as needed

GOAL OPR 4

Maintenance and expansion of cultural programs and special events which enhance the quality of life for City residents and which provide an enhanced experience to visitors and expand economic development opportunities for local businesses.

Policy OPR 4.1
The City shall continue to work with the various local groups and individuals to assist in the organization and promotion of special events and cultural activities, including theater, music, dance, visual arts and crafts, folk life and popular culture, provided that such events conform to the City's goal to maintain a family-oriented community and destination place for visitors.

Program OPR 4.1.1
Evaluate proposals for special events and festivals in the City to ensure that appropriate facilities and services will exist to support the event, and that the event will not negatively impact residents or visitors.
Responsible Agency: Planning Division and reviewing authority, through issuance of Temporary Use Permits
Schedule: As needed and ongoing

Program OPR 4.1.2
Evaluate the feasibility of expanding or creating venues for outdoor performances.
Responsibility: Planning and Finance Divisions, City Manager's Office
Schedule: Ongoing

Program OPR 4.1.3
Evaluate traffic control solutions to large-scale events, including but not limited to use of centralized parking lots and shuttle services.
Responsibility: Engineering Division and reviewing authority through issuance of a Temporary Use Permit
Schedule: As needed and ongoing

PUBLIC SERVICES AND FACILITIES ELEMENT

PUBLIC SERVICES AND FACILITIES ELEMENT

PURPOSE

The Public Services and Facilities Element presents a plan for ensuring that community facilities and infrastructure are available to support existing development, to permit orderly growth, and to promote public health, safety and welfare. Individual service providers may not be aware of citywide or regional issues that affect their systems. This Element provides an area-wide assessment of various public services and facilities to promote a better understanding of service issues and a framework for coordinated planning between service agencies and the City. In addition, the Element provides a basis on which individual property owners can plan the development of their property and be assured that basic infrastructure and services are available or can reasonably be extended to serve each site.

Specifically, the Public Services and Facilities Element serves the following purposes:

1. The Element evaluates the existing level of public services and facilities in the City, including water, sewer, electricity and natural gas, fire protection, law enforcement, solid waste disposal, cable television, library, City buildings, medical services and school facilities, and identifies issues, needs and plans for meeting future infrastructure requirements;

- The Element serves as a guide for decision making by public officials and the development community in prioritizing decisions on infrastructure improvements and expenditures of funds; and

- The Element informs the public of the goals, policies and programs of the City for maintenance and improvement of public services and facilities, and provides implementation measures that will serve as a guide for operational decisions by City staff.

BACKGROUND

The Public Services and Facilities Element is directly related to the Land Use Element in that new development must be planned in conjunction with the extension and availability of essential infrastructure. Other related elements include those in the Environmental Resources and Hazards Elements, since infrastructure improvements can provide mitigation of and safety from hazards such as flooding and seismic shaking. In addition, California Government Code Section 65302(d) provides for the General Plan to address the conservation, development and utilization of natural resources, including water. Related to the conservation and utilization of this natural resource is waste water treatment and the availability of electricity and natural gas, both of which are natural resources. Therefore, the Element satisfies, in part, the requirements for a Conservation Element, while also addressing other utilities, as allowed by Section 65303.

Government Code Section 65302(g) requires that the General Plan include a Safety Element to address the protection of the community from any unreasonable risk associated with the effects of fire, crime and other manmade and natural threats. This Element addresses both law enforcement and fire protection, meeting, in part, this state requirement.

Government Code Section 65103(c) states that a jurisdiction is to "annually review the Capital Improvement Program of the City or County and the local public works projects of other local agencies for their consistency with the General Plan..." In addition, the local jurisdiction may emphasize the importance of this issue by including a Public Facilities Element in its General Plan (Government Code Section 65303). In addition, Government Code Section 65302(a) requires that the General Plan also assess the general distribution and location of educational facilities, and determine the adequacy of these facilities. This Element meets these requirements by containing background information, goals, policies and programs on City facilities, schools, library and medical services.

This Element also provides information on actions which the City must take to effectively respond in the event of an emergency. The Emergency Preparedness portion of the Element is particularly significant because of the City's physical isolation in the San Bernardino Mountains. The City and other agencies located in the Valley must cooperate with one another and have effective plans in place to effectively respond to an emergency. Hazards of particular concern include earthquakes and associated phenomena, forest fires, major transportation accidents, winter storms and flooding. The Element establishes goals, policies and programs designed to assist the City in preparing for these emergencies.

Concern regarding emergency preparedness is directly related to the Geotechnical, Flooding and Hydrology, Hazardous and Toxic Materials, and Fire and Police Protection elements. Other related elements include Land Use and Circulation. Government Code Section 65302(g) states that the General Plan shall address "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure....; slope instability leading to mudslides or landslides..." This portion of the Element meets these state mandates.

The following sections of the background report discuss a wide range of infrastructure necessary to support the City of Big Bear Lake's residents, businesses and visitors, including water, sewer, utilities, fire and police services, public buildings, library, schools and emergency preparedness.

DOMESTIC WATER

The City of Big Bear Lake's Department of Water and Power (DWP) provides domestic water to the City and surrounding areas through five state-licensed water systems. The Big Bear Lake/ Moonridge Water System serves the General Plan area, with 4.3 million gallons (MG) of storage, and 3,515 gallons per minute (GPM) of sustained pumping capability from supply wells. DWP facilities include 18 vertical wells and 14 slant wells, as well as 7 water storage tanks.

Historically, the water system had a high rate of leakage (estimated at 40 percent prior to 1990). An ongoing 1995 capital improvement program to replace mainline piping has reduced leakage to less than 15 percent, and significantly improved fire protection by increasing pipe size to 8 inches, with fire hydrants at regular intervals.

The DWP's 1990 service levels and projections for long term growth in the Big Bear Lake/Moonridge system (based on 278 gpd per connection for average day demand and 457 gpd for maximum day demand) are:

	1990	2010
Number of Connections	8,315	9,915
Average Day Demand (ADD)	1,605 GPM	1,914 GPM
Maximum Day Demand (MDD)	2,638 GPM	3,147 GPM
Required Storage	4.3 MG	5.12 MG
Required Supply	2,638 GPM	3,147 GPM

The General Plan area includes five water pressure zones, each associated with DWP wells and storage tanks: the Town zone, the Lower Moonridge zone, the Lassen zone, the Wolf zone, and the Yosemite zone.

The City currently collects water impact fees associated with all new development. The fees are used by DWP to construct facilities and make improvements to accommodate growth in the system. DWP forecasts that 0.82 million gallons of new reservoir storage will be required in the City/Moonridge area from the year 1990 to 2010 in order to accommodate maximum day demand, operational needs and fire flow. The DWP has also implemented an ongoing rehabilitation project to repair and improve older portions of its system. A $4.88/month/user Rehabilitation Fee is charged to existing customers, and funds the annual $813,000 rehabilitation program.

Growth in the City is estimated at 50 - 80 new Equivalent Dwelling Units (EDU) annually in the DWP's Master Planning. At this rate, the local groundwater supplies in the Big Bear Lake/Moonridge Water System will be adequate for the next 20 - 35 years. After that time, additional sources will be needed. A number of options have been studied, including wastewater reuse and/or lake water recharged into the groundwater basins, but no definite plan of action has been decided upon.

WASTEWATER

The treatment and disposal of wastewater is handled by the Big Bear Area Regional Wastewater Agency (BBARWA), a joint powers authority created in 1974. Sewage in the City of Big Bear Lake is pumped to the BBARWA wastewater treatment plant, located on a 93.5 acre parcel of land within the community of Big Bear City. The plant occupies about 11.2 acres of land, leaving 82.3 acres for storage and the evaporation lake. Presently the agency is under a discharge prohibition that prevents BBARWA from using the evaporation lake for storage or emergency storage. The plant currently

(1998) processes 2.3 million gallons per day (mgd), 1.3 mgd of which is generated within the City, and has a capacity of 3.6 mgd. The plant was recently expanded with addition of a third oxidation ditch, which was funded with the aid of HUD and San Bernardino County for the purpose of back-up treatment and/or emergency storage as a result of the 1992 Big Bear/Landers earthquake. This unit is not intended for daily operations, and is therefore not included in the calculated treatment capacity.

The average new connections to the BBARWA system are 125 per year, of which an average of 66 connections are located within the City of Big Bear Lake. BBARWA is not currently developing expansion plans. Although regulations require plans for expansion when the facility reaches 75 percent of capacity, BBARWA uses dry weather flows to determine capacity. Based on estimated dry weather flows BBARWA is currently at 58 percent of treatment capacity. BBARWA is in the process of developing plans for upgrades to the secondary treatment process, which will include additional storage and nutrient removal. There is sufficient biological treatment capacity at the regional facility for wastewater treatment and sufficient hydraulic capacity if inflow and infiltration problems are addressed.

The regional wastewater agency serves 22,141 equivalent dwelling units (EDUs), of which the City of Big Bear Lake contains approximately 47 percent; however, the City contributes approximately 58 to 62 percent of the flow to the plant. This condition is due to the problems of inflow and infiltration into the sewer system by surface water runoff from rain and snow, through leaky pipes and manholes. Infiltration is defined as subsurface or ground water that enters the sewer system through broken pipes, joints or leaky manholes, and inflow refers to surface water that enters the system. Currently wet weather flows to the facility are estimated to include from 50 to 65 percent inflow and infiltration, which overburdens the plant as well as the hydraulic capacity of the pump stations. Capital rehabilitation of the collection system will help to alleviate this problem. To address this issue, the City undertook an Inflow and Infiltration Study of its sewer system in 1998, and will proceed in future years with additional phases of the study and implementation of recommended upgrades.

There are no industrial discharges into the system; all sewer discharges are from commercial and residential uses. All effluent wastewater is being disposed of via fodder crop irrigation in Lucerne Valley. BBARWA is considering alternate disposal methods for the future, including the possibility of reclaiming the water currently pumped to Lucerne Valley for reuse in the Big Bear Valley. Valley agencies which have formally notified BBARWA of an intent to pursue reuse opportunities include Big Bear City Community Services District, the Natural Heritage Foundation, the Municipal Water District, and the City of Big Bear Lake.

The City owns and maintains a sewage collection system encompassing approximately 7 square miles with over 8300 connections, 126 miles of gravity sewer lines, 3000 manholes, and 13 sewage lift stations. Sewage flows within the City are to the north by gravity flow, and then to the east by force mains to BBARWA's lake pump station, located at the northern terminus of Garstin Road at the site of now abandoned evaporation ponds. From this location, flows are pumped to the treatment plant for centralized processing. The City's collection system is primarily gravity-fed, with several force mains. The 126 miles of main line and over 3,000 manholes are primary sources of inflow and

infiltration and which will need to be upgraded in the future to address these problems. Lines in the center of the City, installed in 1948, are planned for relining in the City's Capital Improvement Program, to reduce infiltration and cracking. Maintenance and operation of the system are funded by user fees. All new development is required to construct its own wastewater infrastructure.

In terms of long-range planning for sewers, population increases or a shift in the occupancy level of existing dwelling units will have less of an impact on the system's capacity than the issues of rain and snow runoff, inflow and infiltration, high lake levels and maintenance issues. Therefore, future directions should focus on completion and implementation of plans to upgrade the City's sewer system.

STORM DRAINAGE

Although there are existing storm drain facilities within the City, the City does not currently have a coordinated system of drainage and is in the process of preparing a Drainage Master Plan. On-street drainage leading to creeks or to other drainage facilities has traditionally been the primary drainage management method in the City. The only major flood control facility is Rathbun Creek, which is partially maintained by the San Bernardino County Flood Control District. Rathbun Creek is predominately an earthen graded, natural unimproved drainage channel and is currently inadequate in areas to contain 100-year storm flows.

During the widening of Big Bear Boulevard/State Highway 18 in 1992, the California Department of Transportation (Caltrans) installed a large conduit on the south side of the boulevard from Knickerbocker Road to east of Wren Drive. This conduit collects most of the runoff generated on the south side of Big Bear Boulevard and directs it to Knickerbocker Creek. The Creek is an open, rectangular, concrete-lined channel designed to carry 100-year flows, and extends from above Pennsylvania Avenue to the Lake.

A number of drainage needs have been identified within the City, including the preparation of a Master Plan of Drainage, currently (1998) under way. It is expected that the use of natural or naturalized channelization will continue whenever possible in the City; however, a need exists for methods of soil stabilization and desilting ponds to reduce siltation from the drainage courses entering Big Bear Lake. Previously completed drainage studies have found that improvements to Red Ant Creek and Rathbun Creek are needed to accommodate 100 year flows without threat to property. It is expected that the Master Plan of Drainage will identify the need for several additional drainage facilities and storm drains. In addition, flood plain management will be addressed in lieu of lined channels where feasible, and joint use of flood control facilities for recreational purposes will be explored.

ELECTRICITY

The Big Bear Valley is unique in is power usage because of the seasonal use of the area and the high vacancy rate of residential units. According to the State Department of Finance, 73 percent of the units in the City are owned as vacation homes, and the occupancy rates for these units can shift dramatically during peak weekends.

The Bear Valley Electric Service (BVES) has served the Big Bear Valley since 1920. Today the company is a wholly-owned subsidiary of Southern California Water Company which provides electric power to approximately 20,500 customers. The BVES service area includes 78 square miles in the Big Bear Valley, including the City of Big Bear Lake and the unincorporated communities of Big Bear City, Erwin Lake, Sugarloaf, Moonridge and Fawnskin. The resident population of the area was 14,352 in 1990, up from 11,151 in 1980. The number of permanent occupancy housing units in the area was 5,679 (28.5 percent of total units, whereas the number of seasonal/vacant units was 14,246 (71.5 percent). The major customer groups identified in the BVES service area are residential (non-seasonal); residential (seasonal); commercial; street lighting; and large power customers, including the Bear Mountain and Snow Summit ski areas and the Big Bear Area Regional Wastewater Agency treatment plant. All of the electric power that BVES provides to its customers is delivered to the BVES system by Edison from outside the BVES service area since Bear Valley Electric does not generate its own electricity.

The system is currently served from an existing at 34.5 kV Edison line and switching substation at Goldhill, located near Baldwin Lake at the eastern end of the Valley near the Big Bear Landfill. This line serves 90 percent of the company's customers. Another line from Redlands serves the Boulder Bay and Village areas. There are fourteen substations located throughout the Big Bear Valley. These substations convert the 34.5kV transmissions to 2,400 - 4,160 kV for distribution lines which eventually bring 120 - 240 kV service to businesses and residences.

A study conducted by BVES in 1993 showed that growth is expected to average 2.3 percent per year, with net meter additions projected to increase to 730 meters annually by the year 2012. The power group customers are considered to have a current potential demand of 13.5 MW, with the largest snow-making load as the larger component of the group which is expected to increase an additional 13.5 MW through the 1990s. Based on their analysis, in years 2000, 2010 and 2020, peak systemwide demand is projected to be above the current system capacity. The total capacity of the existing Edison transmission lines that deliver power to the BVES system, as well as the capacity of BVES's transmission system, are effectively limited to a total capacity of approximately 33 megawatt (MW) and are expected to be insufficient to meet future demand. Therefore, Edison and BVES are currently proposing system modifications to upgrade and expand the electrical system in the BVES service area, which will include upgrading the existing Cushenbury line between the Cottonwood Substation and Goldhill Substation, expanding the existing Goldhill Substation, and

constructing three 33kV lines from the Goldhill Substation to the intertie with BVES's existing distribution system.[1]

The proposed improvements are expected to meet near-term projected system power demand levels up to 56 MW; to provide for the future capacity to meet long-term potential system power demand levels up to 74 MW and then 95 MW in a step-wise fashion; and to enhance system reliability and power quality. If the improvements are not made, degradation in the quality of power would occur as future demand met and ultimately exceeded the existing system's 33 MW capacity. However, other alternative scenarios for upgrading the system are also under consideration. In the future, the City should cooperate with BVES as needed in planning for system upgrades.

Another planning issue with respect to electricity transmission and distribution is the location of power poles and lines. Most lines within the City are above ground, except along the Village "L" (Village Drive and Pine Knot Avenue) where lines were undergrounded during the streetscape improvements. New housing tracts and subdivisions are required to underground lines by City ordinance, and Rule 20 on file with the California Public Utilities Commission applies. The City has also discussed undergrounding lines along Big Bear Boulevard in order to upgrade the corridor's appearance. The City may wish to commit funding and use Rule 20 funds in the future as part of its beautification efforts along the boulevard and in the Village, to expand the undergrounding program.

NATURAL GAS

The City of Big Bear Lake is served by Southwest Gas Corporation. Currently (1998), the Valley receives gas from two lines originating in Victorville. Some commercial buildings and older cabins in the service area still use propane, but Southwest Gas estimates that no more than 1 percent of the residential cabins have not yet converted to natural gas.

Southwest Gas purchases all its natural gas from Pacific Gas and Electric (PG&E) in Barstow. Southwest Gas estimates an increase in 300 customers per year throughout its service area.

Like other utility companies in the Valley, Southwest Gas belongs to the Mountain Mutual Aid. As a result of the 1992 earthquake, a leak survey revealed only one service leak that could have been attributed to the quake.

TELECOMMUNICATIONS

Telephone service is provided by GTE of California, with approximately 24,000 customers in the Valley. An underground fiber-optic cable links Big Bear City with the City of Big Bear Lake. The host office for the service area is located in the Village. There is also an additional remote site within the City, located in Moonridge, and five other remote offices in the service area. From the

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[1] Draft EIR/EIS for Lucerne Valley to Big Bear Valley Transmission/Substation Project, prepared for USDA, USFS and CPUC, August, 1998.

host office in the Village, a microwave repeater in Running Springs can link outgoing long-distance calls to a toll switch in Victorville or San Bernardino. The Village host office has a capacity to provide service to 270,000 subscribers.

Telephone lines are generally located above ground, except in the newer subdivisions, and areas that have underground electrical lines, and is available along the widened part of Big Bear Boulevard and in the Village "L." The City requires undergrounding for all new construction in the Moonridge Specific Plan area, new subdivisions and large commercial developments in other parts of the City.

GTE is a member of the Mountain Mutual Aid Organization. The telecommunications system is capable of providing essential, emergency trunking, controlling the direction of calls for fire and other emergency services. Service was not interrupted during the 1992 earthquake.

CABLE TELEVISION

Cable television service has existed in Big Bear Lake since the early 1960s. In 1985, the system was purchased by Falcon Cable TV, headquartered in Los Angeles. In June, 1997 Falcon served 6,450 homes in the community, or 66.9 percent of the homes they could serve with their existing system. Falcon provides subscribers with 36 channels delivered on a cable-based system typical of 1985-vintage technology. Some fiber-optic cabling has been installed, but not extensively; however, such cabling would help to enable greater channel capacity. A headend facility located within the City consists of four satellite earth stations and associated processing components; this facility receives signals by means of four microwave relay towers located in the San Bernardino Mountains between Lake Arrowhead and Big Bear Lake. The system is capable of providing an emergency alert, especially in conjunction with TV-6, Station KIDS, the Valley's only local channel.

Currently the City's cable TV provider offers no public, educational or governmental access channels, but provides one message channel with bulletin board messages. A low-power television station, TV-6, provides local programming.

Because the City's cable television franchise came up for renewal in 1997, the City commissioned a study to identify cable television needs within the community (*Cable-Related Needs and Interests Ascertainment Report for the City of Big Bear Lake, California*, prepared by M. K. Wyatt & Associates, October 31, 1997). In preparing this report the consultants interviewed staff from a large number of public agencies in the Valley and solicited public input. The following needs were identified by the community with respect to cable television:

- The need for a government access channel;
- The need for an interactive bulletin board;
- Support for the development of a studio to produce local programming and training materials;
- The need for an Institutional Network (I-Net) for transmitting data between facilities, training employees, and video conferencing;

- The need for educational access channels; and
- The public's desire for more channels, lower rates, better signal and sound quality, and more forms of programming.

As a long-term planning issue, the City must evaluate these needs and other recommendations from the report to determine what improvements will be needed to the cable television system, and consequently what changes will be needed to its franchise agreement, both now and in the future as new technology becomes available. Technological advances in communications are changing the way information is transmitted between public agencies and citizens, as well as how many businesses and educational institutions are managed. It is critical that the City achieve and maintain a competitive stance with respect to its communication technology, in order to maximize opportunities for citizens to benefit from long-distance learning, commerce and interaction with government agencies, in addition to the benefits of increased entertainment venues and foreign language and special interest programming.

SOLID WASTE

Waste generation (defined as the sum of waste disposed plus waste diverted) for the City of Big Bear Lake totaled 10,347 tons in 1990. According to the R.W. Beck Study, the projected total solid waste generated by the City in 2005 is expected to reach 13,316 tons, with 1,451 tons diverted to reuse or recycling.

Big Bear Disposal

Currently the City has a franchise agreement with Big Bear Disposal to collect and dispose of refuse and recyclable material within the City; the agreement does not include collection of hazardous waste. The company provides curb-side pick-up for single family residential neighborhoods, and picks up trash from dumpsters at least weekly at multi-family residential and commercial locations. In addition, the company picks up trash at least weekly from the City's public trash collection sites, or more often as needed.

Big Bear Sanitary Landfill

The County of San Bernardino owns the Big Bear Sanitary Landfill and operates it through a public/private partnership with Norcal/San Bernardino, Inc.

In 1993, when federal regulation went into effect, the footprint of the landfill was established at 25 acres. This disposal footprint could not be increased without the installation of a liner meeting current federal standards. The County estimates the landfill now receives an average of 98 tons a day. The County permit establishes a design capacity of 1.2 million cubic yards, and an estimated closure date of 2001/2002. The County has projected a 1 percent yearly increase in solid waste tonnage based on 309 operating days per year. Based on this projection, the County estimates capacity would be reached by the closure date. After closure of the facility the County intends to operate a solid waste

transfer facility at the landfill site. Big Bear Disposal, as well as individuals hauling household solid waste, will continue to use the site. Solid waste will be transferred from the transfer facility to a County regional landfill at regular intervals.

Waste Disposal Agreement with San Bernardino County

The City of Big Bear Lake has joined with a consortium of 17 cities in San Bernardino County to contract with the County for solid waste disposal. The City approved this agreement on August 10, 1998, for a period of 15 years. Under the terms of the agreement, participating cities are making a 15-year commitment in exchange for lower rates with predictable annual adjustments and a broad indemnification from the County. The agreement will still allow private contractors and self haulers to use County landfills provided that they pay the posted tipping fee.

The County's disposal system currently includes seven active landfills and is expected to consist of 5 active landfills upon implementation of the County's Solid Waste Partnership Strategy and Implementation Plan. The disposal system is used for municipal solid waste which is not composted, reused, recycled, transformed or otherwise diverted, but the agreement does not allow the disposal of hazardous waste or substances in County landfills. Under the agreement, the City will continue its waste reduction and recycling programs with Big Bear Disposal Co. The City's designated disposal facility, Big Bear Landfill, can be changed by mutual consent. At the end of each contract year the County will notify the City of remaining disposal capacity and any plans the County may have with respect to redesignating the disposal facility.

Recycling Efforts

In order to comply with the provisions of the California Integrated Waste Management Act of 1989 (commonly referred to as AB 939 regulations), the City of Big Bear Lake joined 7 other cities (Adelanto, Apple Valley, Barstow, Hesperia, Needles, Twentynine Palms, and Victorville) and 3 unincorporated regions of San Bernardino County (Unincorporated East Desert, North Desert, and East Mountain) to form a Joint Powers Authority. The purpose of the Coalition is to develop and implement regional cost effective programs which maximize waste diversion.

According to disposal records from Big Bear Lake Disposal, Inc. and a field study conducted by R.W. Beck and Associates, it was estimated that refuse generators located within the City of Big Bear Lake disposed of approximately 9,220 tons of solid waste in 1990, 40 percent of which was residential, 48 percent commercial, and 12 percent industrial. Source reduction activities currently include use of refillable beverage bottles, tire retreading, and thrift store and charitable collection services. Recycling activities include commercial recycling programs, Christmas tree and greenwaste mulching programs, buy-back centers and drop-off centers.

The City of Big Bear Lake, through its Public Works Division, conducts a composting program and "Operation Clean Bear," a program to service its public trash and recycling sites. Twice a year the City also conducts a community cleanup and beautification program, accepting large trash items

(such as kitchen appliances and mattresses). The City also provides the Garstin Corporate Yard to serve as a site for the Hazardous Materials Center which San Bernardino County currently operates the second and fourth Saturdays of each month, weather permitting, for drop-off of petroleum products, paints, and other hazardous materials.

Future Solid Waste Disposal

Pursuant to the adopted Waste Disposal Agreement, the City's solid waste disposal will be handled by County solid waste transfer facilities and regional landfills for the next 15 years; therefore, solid waste disposal will not be an issue in terms of landfill capacity. However, the City will need to provide for future recycling efforts and waste reduction measures in compliance with AB939. In terms of trash collection within the City, planning efforts should focus on ensuring that public trash bin sites continue to be conveniently located, adequately maintained and provide for compatibility with adjacent land uses.

LAW ENFORCEMENT

The City has contracted with the San Bernardino County Sheriff's Department for law enforcement services since its incorporation in 1980. At that time public safety was a major concern to the newly incorporated City. The City immediately took a strong stand on law enforcement through a well-staffed police program, and has maintained law enforcement staffing through the years well above the level of adjacent unincorporated areas. At the present time, Sheriff's department staffing for the City of Big Bear Lake is about twice the level provided for unincorporated County areas. City law enforcement personnel includes 12 deputies, 1 detective, 2 sergeants, a part-time lieutenant (shared with County areas), and 3 to 4 support staff; in addition, the Captain's time is proportionately allocated to City services as part of the overall contract. The Department maintains 6 vehicles for City use: 4 marked patrol cars, 1 detective car and 1 marked van. The average response time for all calls, emergency to lowest priority, is approximately 6 ½ minutes, although response times can vary based on the location of deputies at the time a call is received.

Under the City's current staffing level approximately 35 percent of the deputies' time is spent on pro-active patrol and 65 percent is devoted to responding to calls for service. This level of service is well within the Sheriff's Department guidelines for service level standards, and is a much higher ratio of pro-active service than that provided in many other cities throughout the County.
As part of the contract with the Sheriff's Department several special teams may be called in to respond to specific needs. These include:

- The Major Accident Investigation Team (MAIT), which can be called in from the Victor Valley to investigate fatal automobile accidents or other traffic accidents involving special circumstances;
- The Crimes Against Children team, from San Bernardino;
- Homicide, from San Bernardino;
- Narcotics, from Twentynine Palms;

- The Arson/Bomb squad, to investigate incidents of fires or use of explosives; and
- The Attack Drunk Driving (ADD) team, to provide saturation patrol at least once a year.

In addition to Sheriff's personnel, law enforcement in the City is aided by citizen volunteers. The Sheriff's department coordinates an active Neighborhood Watch program throughout the Valley, with approximately 3,000 participants valley-wide. In addition, the Citizen Patrol provides surveillance throughout the Valley, including the City of Big Bear Lake. The Citizen Patrol is a volunteer group of 50 to 60 members, each of which receives 56 hours of training from the Sheriff's Department in basic law enforcement procedures. Trained volunteers patrol the community to identify crimes in action or conditions which may potentially lead to crime. The Patrol is funded by donations and currently operates 3 marked cars, with patrol teams operating in four-hour shifts from 8:00 a.m. to 4:00 p.m. year-round, and to 8:00 p.m. in the summer months. The Citizen Patrol teams check vacant houses, targeting areas in which residential burglaries have been reported, and have had a good success rate in preventing such crimes. In addition, the volunteers watch for potholes, property maintenance problems and other issues which should be addressed by other agencies, and this information is reported to the City for action.

The Sheriff's Department works closely with the City's Code Compliance Division to address locations where multiple law enforcement violations have occurred. Property maintenance is a key component of crime prevention, since the appearance of a neglected neighborhood or building can attract crime. There are some areas of the City in which small lots have resulted in crowded development conditions and unmaintained properties. These areas are routinely patrolled for code enforcement violations as well as for law enforcement.

In general the City has enjoyed a low crime rate for crimes against persons, partially due to the increased law enforcement staffing which tends to push illegal activities to areas with less enforcement. Statistics compiled by the Sheriff's Department from 1993-1997 indicate that about 80 percent of the crimes in Big Bear Lake annually are crimes against property, rather than against people. The most significant crime problems in the City are burglary and theft; there is very little violent crime. A primary factor in the number of property crimes in the City is the large number of vacant homes, which are easy targets for burglaries. Crime rates in the City have been fairly steady over time, and have even fallen slightly from a high of 971 reported crimes in 1994 to 640 reported crimes in 1996 and 722 in 1997. The City has not had a crime problem related to gangs, and drug problems are minimal within the City limits.

Related to law enforcement are the legal services necessary to apprehend and prosecute suspects, and the social services needed to support crime victims. The City of Big Bear Lake is also well-served in these areas. There is a full service Superior Court located in the City, with 1 full-time judge assigned to staff the one court room here. This court hears all types of criminal and civil cases, family and domestic law cases, and some juvenile cases involving minor offenses. The Sheriff's Department maintains a jail with space for 20 inmates, which although rarely at capacity is sufficient to handle both the court's needs and the department's needs. Currently, there is also one full-time district attorney assigned to the court, and one full-time public defender. A parole officer is assigned from Victorville to staff the Bear Valley area one day per week, and a full-time juvenile probation

officer is available in the Sheriff's Department. The District Attorney's Office also sponsors a Victim/Witness Assistance Program.

Upon request by the School District Administrator, the Sheriff's Department conducts drug awareness training in the schools and brings the canine unit into the schools to search for drugs on campus. In addition, the deputies patrol parks and other areas near schools to discourage loitering and associated crimes.

The City and surrounding areas have access to several social service organizations which address the problems of domestic violence, substance abuse and family problems. DOVES (Domestic Violence Education and Services) provides not only shelter for abused women and their children, but extensive training in the areas of child care, family counseling, self-esteem, employment skills and other needed skills. Sheriff's deputies refer victims to this facility, which also serves people outside the Big Bear Valley. Another source of assistance for families is the Family Resource Center, funded by the Department of Social Services in collaboration with the Family Counseling Center, Operation Breakthrough, DOVES and the Bear Valley Unified School District. This agency provides referrals, education, counseling and support to families in need.

In terms of future planning for law enforcement, the City's current level of service is adequate to serve the present population. As new development occurs under the General Plan with a resulting increase in population, the City may need to increase its service level.

FIRE PROTECTION

The City of Big Bear Lake provides fire protection services, including fire prevention, fire suppression and emergency medical services, through a subsidiary district known as the Big Bear Lake Fire Protection District. The District, also commonly referred to as the Fire Department, is a separate board-governed district with the City Council serving as the governing board. The District has a separate budget from the City, funded primarily from property tax. District boundaries include the incorporated City limits as well as approximately one square mile of unincorporated land to the west and south of the City boundaries.

In the developed areas of the Valley, fire and rescue mutual aid agreements exist between the Fire District, Big Bear City CSD Fire Department, and Fawnskin Fire Department. Fire protection for the forest areas surrounding the City, including the wildland and structures, is the responsibility of the U.S. Forest Service. Local reciprocal mutual aid agreements exist in support of the Forest Service fire suppression responsibility. The District has a local reciprocal fire mutual aid agreement with the Forest Service. The City, through the Fire District, also participates in the State of California Master Mutual Aid Agreement. Under this agreement, the District can request fire resources to aid in large fires or other disasters from municipalities or other agencies throughout the State, and likewise will respond to calls for service outside the district's boundaries, generally in surrounding southern California counties.

The Fire Department currently operates three fire stations:

- Headquarters Station #281, located at 40906 Big Bear Boulevard, is staffed full time and has an average response time of 4 to 6 minutes. Fire protection, fire prevention, and emergency medical services are provided from the headquarters station.
- Station #282, a paid-call station, is located at 39690 Big Bear Boulevard, immediately north of the Civic Center. The average response time is 11 to 14 minutes. The station is staffed by paid-call and off-duty personnel only during emergency recalls, who provide fire protection and emergency medical services.
- A third paid-call fire station, Station #283, is located at 42610 Rathbun Drive within the Moonridge Specific Plan area. It includes one fire engine and a rescue unit. As with Station #282, this Station is staffed by paid-call and off-duty personnel only during emergency recalls, who provide fire protection and emergency medical services.

All calls are dispatched from the Sheriff's Department to Headquarters Station 281. Station 281 has an administrative staff which includes one chief and one assistant chief and clerical positions. In addition, there are usually three to four suppression personnel on duty at any time, which increases to four to five suppression personnel on the weekends. These personnel include a suppression officer and one or two firefighters.

In terms of future planning for fire protection, the District will continue to emphasize the area of fire prevention through its annual business inspection program, administration of the weed abatement contract with San Bernardino County, review of proposed development projects and business license applications, and inspections of new construction. In addition, plans are currently under way to relocate and expand Station 281 to a new site, and the District's Capital Improvement Program calls for replacing fire equipment as needed.

Police and fire protection are integral to an urbanized environment, and crucial to a City as isolated as Big Bear Lake. It can be expected that as development continues, so will the need for expanded public safety services and personnel. Equipment needs for the City Fire Department can also be expected to grow, in addition to the maintenance and replacement of older equipment. The General Plan must support these services, to ensure adequate levels of service to support growth and continue to protect the community.

MEDICAL SERVICES

A broad base of medical services are provided to the area by the Bear Valley Community Healthcare District (BVCHD), which owns and operates the Bear Valley Community Hospital at 41870 Garstin Road within the City of Big Bear Lake. The hospital provides 24-hour emergency care, in- and out-patient surgery, in-patient acute medical care, radiology, physical therapy and acute respiratory care, among other services. The District also operates a skilled nursing facility, family counseling center, family resource center, and home health care. The District is a non-profit agency governed by an elected board, and is supported by auxiliary and foundation volunteers.

Ambulance services to the City of Big Bear Lake area are also provided by the Bear Valley Community Healthcare District through the Bear Valley Paramedic and Ambulance Service. The Service offers emergency care, transportation to BVCHD emergency facilities, inter-facility transfers and non-emergency transport. In 1998 this district adopted a joint powers agreement with the Big Bear City Community Services District to jointly staff and operate the ambulance service. Under this arrangement the District's ambulances are stationed at the Big Bear City Fire Station, and the City of Big Bear Lake no longer has a full-time ambulance stationed within the City limits. Because of the response time needed for emergency medical situations, the State has adopted a response time guideline of eight minutes and the County's guideline is ten minutes. The City of Big Bear Lake's goal with respect to ambulance service is to meet or exceed County and State guidelines. Therefore, in the future, planning for ambulance services within the City will focus on evaluating a variety of options to reduce response times and improve service delivery for City residents.

In recent years the Hospital District has suffered financially and the Board is currently evaluating ways to keep the full-service hospital portion of its services open in the face of budget cutbacks. To the extent that a decrease in the availability of medical services will affect the citizens of Big Bear Lake, the City should cooperate with the hospital district in seeking solutions to funding problems and maintaining appropriate and cost-effective service levels.

In addition to the hospital, a variety of other medical services are available within the Valley to serve City residents and visitors. In particular, the community has a strong level of service in the area of sports-related injuries, due to the large number of people participating in both summer and winter sports.

EMERGENCY PREPAREDNESS

The Big Bear Valley's isolated location makes emergency preparedness a critical planning issue for the City, which will be the agency of first response in the event of a major earthquake or other significant emergency. The Valley is surrounded by San Bernardino National Forest lands, and there are only three maintained vehicular access points in and out of the Valley via State highways: Highway 18 to the Victor Valley, Highway 330 to San Bernardino, and Highway 38 to Mentone. The area is subject to earthquakes and avalanches, snowstorms, flash floods, landslides and forest fires. Any of these events could cause the Valley to be isolated from outside assistance, and could hamper evacuation efforts should they be necessary.

In 1984, the City of Big Bear Lake first began developing an emergency preparedness program. In the past 12 years, the program has been tested and activated as a result of several disasters, including a severe winter storm in March 1991 (known as "The March Miracle"); a major earthquake in 1992; and winter storms in 1993, 1994, 1995, and 1998 that resulted in roof failures and wind and water damage. The City's emergency preparedness program has been activated many times since incorporation. The City Manager serves as the City's Disaster Preparedness Director and the Fire Chief as its Disaster Preparedness Coordinator. The City has worked with the Federal Emergency Management Administration (FEMA), the California State Office of Emergency Services, the San

Bernardino County Office of Emergency Services and local utility purveyors to develop a Disaster Preparation Plan. The Plan, adopted in 1986, is recommended to be revised every 5 years. A first revision was adopted in 1991. Both the 1986 and the 1991 plans were accepted by the State Office of Emergency Services and provided the basis for recovery funding. In 1998 the Fire District began revising the City's Emergency Preparedness Plan to comply with the State's Standard Emergency Management System (SEMS).

The City's Disaster Plan Administrative Manual outlines the organizational structure of the Plan: policy, coordination, and operations to ensure emergency preparedness. The Manual also requires that each City department establish operational guidelines for employees to initiate prior to, during, and after each event. The City is participating in a joint State, County, local government cooperation and notification plan. The Fire Department conducts annual drills with the schools, provides inspections of private homes and businesses upon request, and advises citizens on the need for self-preparedness.

Standardized Emergency Management System (SEMS)

All jurisdictions within the State of California must satisfy State guidelines for emergency preparedness. The Petris Bill designated the Standardized Emergency Management System (SEMS) to oversee the mandated program. The primary objectives of the SEMS Program is to preserve life and property, and to provide essential services to citizens. Components of the SEMS Program include the command system, deployment, resource procurement, recovery, and general coordination of pre-event, event, and post event activities. The City of Big Bear Lake was one of the first jurisdictions in the County of San Bernardino to satisfy the basic SEMS requirements, making it eligible for disaster funds.

Since 1992, the City has recovered approximately $2.5 million in disaster-related claims. These included funds for reconstruction of, and drainage improvements to, Paine Road, and the rehabilitation of the Civic Center. A $340,000 seismic rehabilitation grant to fund the construction of a new Fire Department headquarters facility has been awarded but not yet received.

Local Agency Coordination

The City of Big Bear Lake Fire Protection District actively participates in the Mountain Mutual Aid Organization, which also includes the fire departments, utility and telecommunications companies, law enforcement agencies, the media, school districts, the San Bernardino County Department of Roads, Department of Public Health, Office of Emergency Services, the California Department of Transportation, the hospital district, ambulance services, Civil Air Patrol (CAP), Radio Amateur Civilian Emergency Services (RACES), REACT (a civilian CB-radio organization), the American Red Cross, the Civilian Air Patrol, the parks district, the Municipal Water District (MWD), and other Valley organizations.

All Mountain Mutual Aid agencies have resource inventory lists for local use, including supplies, staffing, and equipment in case of an emergency.

Essential Facilities

Essential facilities within the Valley include all government facilities, hospitals, schools, fire and police stations, City Hall, sewage pumping stations, water tanks, and supplies sources. Within the City of Big Bear Lake, the primary emergency operations center is the Fire Department headquarters. Possible alternative emergency operations centers include the Civic Center, the Sheriff Office, and Big Bear City CSD Fire Department.

Emergency Transportation and Circulation

There are three paved and maintained State highways providing access between the City and other areas of the County, which in case of emergency would be critical for provision of emergency assistance or evacuation. None of the three are directly under City jurisdiction. Of particular concern is the Highway 18 bridge over the Bear Valley Dam, which may be unable to withstand significant seismic activity. The California Department of Transportation is currently (1998) evaluating the feasibility of relocating or reconstructing this bridge. Access to the City from the north shore could be blocked by liquefaction or flooding hazards at Stanfield Cutoff; however, this is not a critical access point in terms of evacuation or outside assistance. In the 1992 Landers/Big Bear Earthquake, access to the Highland/San Bernardino area via Highway 18/330 was blocked by rockfalls and landslides, as was access to the Mentone area via Highway 38 to Mentone. The route which was most immediately accessible to the Big Bear Valley was Highway 18 to the Victor Valley. In its continued emergency planning efforts, the City must carefully monitor plans for improvement of these critical emergency access roadways.

The June 28, 1992, Earthquake

On June 28, 1992, the City of Big Bear Lake experienced a 6.9 magnitude earthquake, which occurred about 3 hours after the 7.2 magnitude Landers Quake. The Big Bear quake was centered on Sugar Loaf Mountain, approximately ½ mile south of Big Bear High School. There were two complete structural collapses within the City limits. The City's Civic Center and the San Bernardino County Sheriff Department headquarters suffered major structural damage. The City Fire Department headquarters was partially damaged and the two outlying fire stations were condemned and have since been rebuilt.

Because of the Landers earthquake, the City's emergency services were in operation when the Big Bear quake occurred. Outside assistance was requested through the County Mutual Aid Plan. The City was divided into sections, events were prioritized as they were reported, and assistance deployed. There were no injuries or deaths reported as a result of the Big Bear earthquake or its aftershocks.

The City's long range plans for emergency preparedness include continuing to implement appropriate developments within the SEMS Program. The City also plans to train all City employees in preparedness procedures and continue to provide assistance on preparing emergency school, business, property owner, and individual plans based on request. In this regard, the City will

evaluate the feasibility of participating in the nation-wide emergency preparedness training program known as CARES (Community Assistance and Response to Emergency Situations). The City will also evaluate proposed land uses with respect to availability of emergency services.

CITY-OWNED BUILDINGS AND FACILITIES

Civic Center

The Civic Center/City Hall is located at 39707 Big Bear Boulevard. On June 1, 1985, the 12-acre site was dedicated to the City's residents by its owner, Mr. Milton Hofert. The agreement allows the City to use the land and historic structures for a city hall, museum and historic center, animal park, performing arts center, public recreation facilities, and other community uses. All City offices, except for the Fire Department, the Department of Water and Power, and the Public Works Division, are located in the approximately 37,000 square foot City administration building built in 1987. The Civic Center has 2 floors of office space, and a basement containing a training room and utility rooms. It also contains an emergency generator for electrical generation during power failures. A building located adjacent to the parking lot is also utilized for facilities maintenance personnel and equipment.

Performing Arts Center

The Performing Arts Center (PAC) is connected to the Civic Center, and includes an administrative office, a full kitchen, a 398-seat, professional theater, a backstage area for performance preparation and costume changes, and Hofert Hall, which is used as a lobby area for the theater and a multi-purpose space for community meetings and activities, including Planning Commission and City Council meetings. Community groups also use the facilities on a rental basis.

City Corporate Yard Facilities

The City has consolidated its maintenance and public works operations at the Garstin Yard. Future planned construction includes two additional vehicle service bays to complement the existing bay. The Jeffries Yard, previously used for vehicle maintenance, may be sold as surplus property.

Chamber of Commerce Building

A two-story, City-owned building located at 630 Bartlett Road is currently being leased to the Big Bear Chamber of Commerce and Resort Association. The building houses various offices, a conference room, a public reception area, and public restrooms.

Public Parking Lots

The City currently owns and maintains 3 public parking lots. The Bartlett lot in the Village Specific Plan area can accommodate 150 cars, and is adjacent to the Chamber of Commerce building. A

second lot in the Village, the Indian Village lot, has room for approximately 50 cars, and a third lot is located on Alden Street south of Big Bear Boulevard and serves businesses in this area with space for approximately 30 vehicles.

The City currently owns a broad range of public buildings and facilities. As the City grows, the continued provision of services will be dependent on the adequacy of these facilities. The City must regularly monitor its residents' and visitors' needs, and adjust facilities accordingly.

City Services

In addition to the fire, water, and sewer services provided by its subsidiary districts, the City provides a wide variety of services to the public. In the area of community development, the City handles long-range planning, development review, building permits and inspections and code compliance. With respect to public works, the City handles street maintenance and snow plowing, maintenance of City facilities, parks, the Performing Arts Center and portions of the Village. The City's goal in this area is to establish a high level of service to the community, acting quickly to process applications, answer the public's questions, and respond to calls for service. Because of the importance of public service to the City of Big Bear Lake, policies and programs have been included in this Element of the General Plan to address this issue.

SCHOOLS

The Bear Valley Unified School District, which serves the City, as well as surrounding unincorporated areas, owns and operates 6 schools housing approximately 3,350 students from kindergarten through 12th grade. These include Big Bear High School in Big Bear City; Chautauqua Continuation High School adjacent to Big Bear High School; Big Bear Middle School and Big Bear Elementary School, both located within the City of Big Bear Lake; North Shore Elementary School on North Shore Drive north of the City; and Baldwin Lane Elementary School in Big Bear City.

The Bear Valley Unified School District has experienced a 2-3 percent student growth rate over the past 10 years, creating a need for approximately 2 additional classrooms annually. Over a 10-year period, this growth rate has resulted in a need for 1 new school. The district is currently evaluating options for a new school, which is estimated to be needed within the next 5 years. The District is currently over-crowded and has adopted a school mitigation fee for new development which is paid upon issuance of building permits within the district. These fees are currently lower than allowed by State law for both residential and commercial construction. In addition, the District is going to a multi-track year-round schedule for grades Kindergarten through 6th in 1999.

Although no formal agreements exist between the School District and youth sports organizations, the District's facilities are heavily used by these organizations as play fields for baseball, soccer and other activities. These organizations are asked to provide the District with insurance, and some have helped with field maintenance and improvements.

Planning issues for schools within the City will focus on coordinating with the District as needed for site selection and off-site design issues, if new facilities are to be constructed within the City limits. In addition, the City will encourage other forms of educational services ranging from day care and pre-school to classroom space for colleges, technical and trade schools. Also, as noted in the Cable TV section of this Element, the City will seek to increase educational services available by television.

LIBRARIES

Public library service in the Big Bear Valley is provided by a branch of the San Bernardino County Library System, located at 41930 Garstin Road. The branch houses between 22,000 and 24,000 volumes, as well as periodicals. The branch employs 1 full-time librarian, 5 part-time employees, and between 7 and 10 volunteers. There are no plans to expand the Big Bear Branch. The County Library system is looking towards local governments to help support its operations. Although the City has no current plans to establish a City library or take over library services, the City will cooperate with the County to ensure the availability of this service to City residents, to the extent feasible.

The City's schools and library are important community assets, and a significant barometer of the social health of the City. These assets are also an important consideration for those moving to the City. As the City continues to grow, schools and library facilities will continue to be important to the City's population. Their location requires consideration of many factors, including student safety, accessibility, and impacts from noise.

JURISDICTIONAL ISSUES

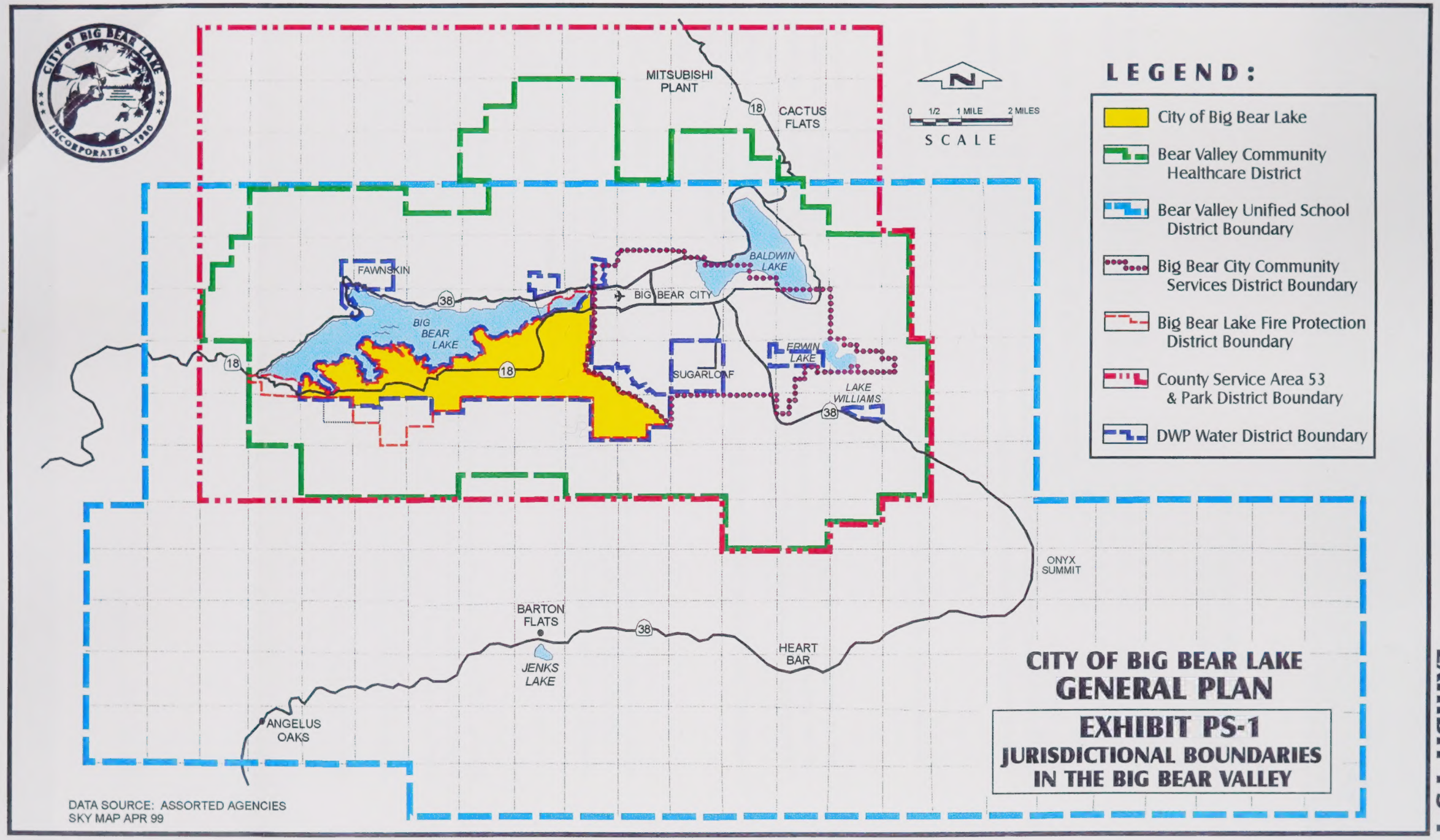
An issue of concern to the City as well as the entire Valley is the number of agencies involved in providing public facilities and services, as well as regulating development within the area. For example, there are four fire agencies serving the Valley and surrounding areas. Planning, building and code compliance functions fall under the City within incorporated areas and under San Bernardino County in unincorporated areas, thereby causing inconsistencies and confusion in areas where the City has annexed property and other unincorporated portions of the Sphere of Influence. Both the City's subsidiary districts, DWP and the Fire Protection District, have boundaries which are not coterminous with the City, and the County Park District boundaries are not coterminous with either the City or other special districts. Exhibit PS-1 shows service district boundaries in the Big Bear Valley. Other similar jurisdictional issues exist with respect to Big Bear Lake, which is controlled by the Municipal Water District and Bear Valley Mutual Water Company, and the US Forest Service, Army Corps of Engineers, and California Department of Fish and Game have jurisdiction over certain permits for watercourses and endangered species. The complexity of the regulatory and service environment affects both property owners and the agencies involved. Costs of operation may be higher in some cases because of duplication of certain administrative functions, equipment and operational costs, and permitting and inspection processes. While a solution to simplifying the jurisdictional complexity of the Valley is unclear at this point and will be difficult

to achieve, the City will cooperate with all other affected agencies to evaluate alternatives which make service delivery more cost-effective and convenient for Valley residents.

FUTURE DIRECTIONS

Public facilities and services are essential components of community development. The orderly extension of services and facilities is integral to the logical and cost effective expansion of the urban land use pattern, and must be coordinated by the City and planned to adequately accommodate future growth anticipated by the General Plan. This Element of the General Plan gives service providers information on future service demands to allow them to plan for future demand and improvements, and informs City residents of infrastructure planning needs and opportunities.

Exhibit PS-1: Jurisdictional Boundaries


MITSUBISHI PLANT
CACTUS FLATS
FAWNSKIN
BIG BEAR LAKE
BIG BEAR CITY
BALDWIN LAKE
SUGARLOAF
ERWIN LAKE
LAKE WILLIAMS
ONYX SUMMIT
BARTON FLATS
JENKS LAKE
HEART BAR
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18
38
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SCALE
LEGEND:
City of Big Bear Lake
Bear Valley Community Healthcare District
Bear Valley Unified School District Boundary
Big Bear City Community Services District Boundary
Big Bear Lake Fire Protection District Boundary
County Service Area 53 & Park District Boundary
DWP Water District Boundary
CITY OF BIG BEAR LAKE
GENERAL PLAN
EXHIBIT PS-1
JURISDICTIONAL BOUNDARIES IN THE BIG BEAR VALLEY
DATA SOURCE: ASSORTED AGENCIES
SKY MAP APR 99

EXHIBIT PS-1

PUBLIC SERVICES AND FACILITIES GOALS, POLICIES AND PROGRAMS

GOAL PS 1 GENERAL INFRASTRUCTURE NEEDS

Public services and facilities that adequately meet the immediate and long-term needs of the City, providing a high level of service for the lowest reasonable cost, while minimizing impacts on the local and regional environment.

Policy PS 1.1
Assure the provision of adequate public services and facilities for all residents, businesses and visitors within the community, now and in the future.

Program PS 1.1.1
Cooperate with all utility, infrastructure and service providers to promote coordinated master planning for these services, coordination of infrastructure planning with land use planning, and to assure minimal impacts to the environment and the community from expansion and maintenance of infrastructure systems.
Responsible Agency: Planning Division, Public Works Division, Department of Water, Sanitation Division, Fire Department
Schedule: Ongoing

Program PS 1.1.2
Adopt and annually update the City's Capital Improvement Program to prioritize funding for public works projects in accordance with this General Plan and other identified needs within the City.
Responsible Agency: City Manager's Office, Planning Division, Public Works Division, Finance Division, Department of Water and Power, Fire Department, City Council
Schedule: Ongoing

Program PS 1.1.3
Evaluate the City's infrastructure capacity and needed improvements as part of the City's growth management program, and revise and update the program as needed to ensure that a nexus exists between fees collected and identified public infrastructure improvements, and that new development pays only that portion of the cost needed to mitigate impacts of that development.
Responsible Agency: City Manager's Office, Planning Division, Department of Water, Sanitation Division, City Council
Schedule: Annually in conjunction with review of the budget and Capital Improvement Program

Program PS 1.1.4
Seek public input regarding proposed property acquisitions for public facilities and uses when feasible without jeopardizing the negotiation process, through public notice for open City Council discussions of these matters as they arise.
Responsible Agency: City Manager's Office, City Clerk, City Council
Schedule: Ongoing as needed

Policy PS 1.2
Ensure that adequate infrastructure exists or can reasonably be extended to serve new development, that such extensions are planned in an efficient and cost-effective manner, and that new development pays its fair share of the cost of infrastructure.

Program PS 1.2.1
Continue to require that adequate water supply, distribution, fire suppression systems, sewer facilities, and storm drainage facilities are assured prior to issuance of building permits for new construction which increases the use or intensity of a site. This is not to be construed as a requirement to connect to a public utility.
Responsible Agency: Planning Division, Department of Water, Sanitation Division, Fire Department, Building and Safety Division
Schedule: Ongoing

Program PS 1.2.2
Adopt, implement and annually review user fee and connection fee programs, to support the cost of constructing capital facilities, maintaining City utility systems, and providing services.
Responsible Agency: City Council, Department of Water, Governing Board
Schedule: Continue an ongoing program

Program PS 1.2.3
Evaluate each new development proposal, including major modifications to existing development and requests for changes of land use designations, with respect to infrastructure needs and impact on regional service systems, and condition approval of development projects to require on and off-site improvements needed to support the project prior to occupancy of the project or each phase thereof.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing

Policy 1.3
Require that individual development projects integrate with adjacent development so as to promote economical and efficient land development, through the following measures:
A. If adjacent land is undeveloped, require a conceptual plan, if appropriate, to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

B. Require that the proposed infrastructure design within a development project permits economical and efficient development of land on the subject property and on adjacent properties.
C. Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.
D. Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.
E. Where feasible, require that consideration be given to sharing drainage facilities between adjacent projects, with the cost shared on a "fair share" basis.
F. Ensure that street rights-of-way, drainage facilities, site grading, or other similar public infrastructure improvements are not designed in a manner that increases the developability of a single property at the expense of an adjacent property.
G. Distribute the costs of extending infrastructure equitably among those benefitting from the improvements.

Program PS 1.3.1
Through the development review process, ensure compliance with this policy.
Responsible Agency: City Engineer, Development Review Committee, reviewing authority
Schedule: Ongoing

GOAL PS 2 WATER FACILITIES

A water storage and distribution system adequate to meet the community's needs, including domestic and commercial use and fire flow, and which can ultimately accommodate use of reclaimed water when such use becomes feasible within the City.

Policy PS 1.4
Assure an adequate water system and source of supply for existing and future development and maintain an adequate reserve of water in storage facilities.

Program PS 2.1.1
Update and implement the Department of Water and Power Master Plan for future development of facilities and Fifty-Year Depreciation Plan.
Responsible Agency: Department of Water and Power
Schedule: Immediately upon adoption; ongoing

Program PS 2.1.2
Develop and maintain a contingency plan for potential water shortages including ground water management, locations for additional storage facilities, and water conservation programs.
Responsible Agency: Department of Water and Power
Schedule: Immediately upon adoption; ongoing

Program PS 2.1.3
Encourage conservation of ground water resources through the following measures:

1. Development standards shall be compatible with and promote the City's water conservation goals and policies;
2. Encourage the use of drought-tolerant and native plants in landscaping plans;
3. Require that new development consider and plan for water reclamation when feasible;
4. Require the utilization of reclaimed water for landscape irrigation, grading, and other non-human contact uses where appropriate and when feasible.

Responsible Agency: Planning Division, Department of Water and Power, reviewing authority
Schedule: Ongoing

GOAL PS 3 SEWER FACILITIES

A sewer system adequate to serve the long-term needs of the community, including an upgraded sewage collection system and adequate treatment plant capacity.

Policy PS 3.1
Cooperate with the Big Bear Area Regional Wastewater Agency (BBARWA) in determining future needs and developing plans for wastewater facilities.

Program PS 3.1.1
Include in the new Five-Year Capital Improvement Program the upgrading and replacement, as necessary, of the City's main lines and manholes, as well as any other necessary measures to reduce inflow and infiltration into the sewer system.
Responsible Agency: City Manager's Office, Sanitation Division, Public Works Division, Engineering Division, Finance Division
Schedule: Study initiated FY 1998-99; implementation ongoing based on funding availability

Program PS 3.1.2
Cooperate with BBARWA in assuring that new development pays its fair share of future development, expansion, and operating costs for wastewater treatment.
Responsible Agency: Sanitation Division, Development Review Committee, reviewing authority
Schedule: Ongoing

Program PS 3.1.3
Provide assistance to BBARWA as needed to complete and implement that agency's Long Range Facilities Plan.
Responsible Agency: Engineering Division, Sanitation Division
Schedule: Plan initiated FY 1997-98; completion and implementation ongoing

Program PS 3.1.4
Cooperate with BBARWA as needed in that agency's plans to upgrade the secondary treatment system and to seek customers and facility upgrades needed to accommodate local use of reclaimed water.
Responsible Agency: Planning Division, Engineering Division, Public Works Division, Department of Water and Power Sanitation Division
Schedule: Ongoing

Program PS 3.1.5
Actively encourage and support BBARWA in any future requests to change its point of discharge, as determined by the California Regional Water Quality Control Board, from Lucerne Valley to the Big Bear Valley, for local use of reclaimed water at the appropriate time.
Responsible Agency: City Attorney, Department of Water and Power, City Council
Schedule: Ongoing

Program PS 3.1.6
Provide ongoing communication and coordination with BBARWA regarding the City's sewer system upgrades, including long-range planning, capital improvement projects, inspections and maintenance of the system, through the Utility Coordinating Committee or other means as appropriate.
Responsible Agency: Department of Water, Sanitation Division
Schedule: Ongoing

GOAL PS 4 UTILITIES

Adequate utility systems to meet the long-term needs of the community and enhance communication systems, while minimizing visual and environmental impacts of utility poles, overhead lines, and telecommunication facilities.

Policy PS 4.1
Cooperate with all utility purveyors in the planning, designing, and siting of distribution, collection, and support facilities to ensure the timely expansion of services in a manner which minimizes environmental impacts and disturbances to existing improvements.

Program PS 4.1.1
On new development approvals, the City will require that the project applicant coordinates with utility companies to ensure provisions of adequate access to utility lines and facilities.
Responsible Agency: Building and Safety Division, Public Works Division, Utility Providers
Schedule: Immediately upon adoption; ongoing

Policy PS 4.2
Encourage use of alternative energy sources to conserve nonrenewable resources.

Program PS 4.2.1
As technological advances for alternative energy sources make these sources available and feasible, actively participate in the long-term planning and development of the infrastructure needed to support their use, including but not limited to recharge stations.
Responsible Agency: Planning Division, Engineering Division, Building and Safety Division, Public Works Division
Schedule: Ongoing

Program PS 4.2.2
Encourage the availability and installation of individual alternative energy systems in residential, commercial and industrial uses through various means, including but not limited to streamlining the development review process for these systems.
Responsible Agency: Planning Division, Building and Safety Division, reviewing authority
Schedule: Immediately after adoption; ongoing

Program PS 4.2.3
Support local, State and Federal programs and economic incentives for conservation and alternative energy programs, and consider establishing City incentives.
Responsible Agency: Planning Division, Building and Safety Division
Schedule: Immediately after adoption; ongoing

Policy PS 4.3
Cooperate with other agencies to ensure the provision of expanded electric power to the planning area to meet future needs.

Program PS 4.3.1
Assist the Bear Valley Electric Service as needed in that agency's plans to upgrade capacity in the distribution system for electricity to and within the community.
Responsible Agency: Planning, Engineering, and Building and Safety Divisions
Schedule: Ongoing through environmental review and implementation

Policy PS 4.4
Through franchise agreements or other appropriate means, provide for expanded cable television service or other alternative television service to the planning area.

Program PS 4.4.1
Periodically review the City's cable television franchise agreement with respect to the needs of businesses, residents and public agencies in the community, and require appropriate upgrades to expand the service as needed and as permitted by law.
Responsible Agency: Finance Division, City Manager, City Council
Schedule: 1998 and ongoing

Policy PS 4.5
Improve the visual appearance of the community through requirements to underground utility lines on new development where appropriate, and seek funding sources to underground existing lines for City beautification in selected areas, while minimizing street cutting through coordination with utility companies.

Program PS 4.5.1
Adopt regulations requiring the undergrounding of utility lines on new development except where this requirement may be waived by the City Engineer.
Responsible Agency: Planning Division to incorporate regulations in Development Code Update; Engineering Division and reviewing authority to implement
Schedule: Adoption FY 1999-2000; implementation ongoing

Program PS 4.5.2
Utilize Rule 20 funds and other available funding sources to underground existing utility lines along major corridors and in scenic areas, particularly along portions of Big Bear Boulevard.
Responsible Agency: Engineering Division, City Council
Schedule: Ongoing

Program PS 4.5.3
Coordinate with utility companies through regular meetings of the Utility Coordination Committee and by other means as appropriate, to limit the impact of utility upgrades on the City's road system, limit disruption to traffic, encourage consolidation of transmission facilities and corridors to the extent practicable, and encourage that utility work be undertaken when the roadway will be otherwise disturbed.
Responsible Agency: Public Works, Department of Water and Power
Schedule: Ongoing

GOAL PS 5

Provision of a wide variety of communication services and providers to serve businesses and citizens, while avoiding adverse impacts to health, land use, environmental resources or aesthetics which may result from unregulated proliferation of these facilities.

Policy PS 5.1
Allow a two-tiered review process for communication facilities, to ensure that providers are not unnecessarily delayed on minor projects, while giving the public an opportunity to comment on projects that may affect them.

Program PS 5.1.1
Require review of proposals for major telecommunication facilities, including towers, monopoles or other visually obtrusive facilities, through a public hearing before the Planning Commission; and allow administrative review and approval of minor communication facilities, including stealth antennas on existing structures which are not visually obtrusive, at the discretion of the City Planner.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Policy PS 5.2
Ensure that communication facilities are installed and operated so as to minimize adverse health impacts on residents from electromagnetic radiation, improperly installed or located facilities, or other health and safety hazards.

Program PS 5.2.1
Incorporate applicable FCC standards into the review and approval process for communication facilities, and ensure that the location, design and construction of these facilities provide an acceptable level of safety to the public.
Responsible Agency: Planning Division and reviewing authority
Schedule: Ongoing

Policy PS 5.3
Ensure that the installation and operation of telecommunication facilities in the City are compatible with existing and planned land uses, and will minimize adverse environmental impacts.

Program PS 5.3.1
Adopt development standards for siting and design of telecommunication facilities which address the following issues: location and co-location; site area; setbacks; height; aesthetics and design; screening; fencing; landscaping; concealment; lighting; and accessory buildings.
Responsible Agency: Planning Division to draft standards; Planning Commission and City Council to adopt and apply standards
Schedule: Adoption FY 1999-2000; implementation ongoing

Policy 5.4
Ensure that the general public does not bear the cost of providing telecommunication services, that cost recovery for use of public land and infrastructure is commensurate with the benefit provided, and that providers of communication services are treated equitably within the City

Program 5.4.1
Allow public lands, buildings, structures and rights-of-way to be made available for use by communication service providers, provided that fair compensation is paid for their use and that any damage is repaired by the provider.
Responsible Agency: Planning, Engineering, Finance Divisions, City Manager and City Council
Schedule: Ongoing

Program PS 5.4.2
Ensure that applications by communication service providers to use City-owned land or improvements are reviewed with respect to the following issues: fair compensation; conformance with land use, environmental and permitting requirements; encroachment permits and inspections; maintenance; liability; removal and site restoration, if use is discontinued; transfer of ownership; coordination between affected departments and agencies; and equitable treatment among providers.
Responsible Agency: Planning, Engineering, Finance Divisions and City Manager
Schedule: Ongoing

GOAL 6

Ensure provision of adequate facilities and programs to accommodate the collection, transport and disposal of solid waste and hazardous waste, in conformance with applicable laws.

Policy PS 6.1
Implement the regulations of the California Integrated Waste Management Act of 1989 (also known as "AB 939"), in consideration of the specific conditions and needs within the planning area.

Program PS 6.1.1
Continue to cooperate with the Desert and Mountain Coalition of San Bernardino County and to implement the Source Reduction and Recycling Element and the Household Hazardous Waste Element.
Responsible Agency: Public Works Division, Finance Division
Schedule: Immediately upon adoption; ongoing

Program PS 6.1.2
In cooperation with San Bernardino County and other affected agencies, assist in planning for a suitable site within the Valley for legal disposal, stockpiling and/or recycling of paving materials and construction debris.
Responsible Agency: Public Works Division, in cooperation with Big Bear Disposal
Schedule: Ongoing

Program PS 6.1.3
Participate in exploring cost-effective alternatives to the disposal of solid waste in landfills.
Responsible Agency: City Manager's Office, Engineering Division, Public Works Division, in cooperation with other affected agencies
Schedule: As needed; ongoing

Program PS 6.1.4
Maintain and improve the appearance of community trash collection sites throughout the City for visitors, while encouraging the long-term expansion of curb-site collection service for residents.
Responsible Agency: Public Works Division, in cooperation with Big Bear Disposal
Schedule: Ongoing

Policy PS 6.2
Provide for the safe collection and disposal of hazardous waste generated from City residents and businesses.

Program PS 6.2.1
Maintain the City's Household Hazardous Waste collection site at the Garstin Yard, or other location as appropriate, and inform residents of the location and hours of this service.
Responsible Party: Public Works, in cooperation with the contracting agency
Schedule: Ongoing

Program PS 6.2.2
Ensure that larger generators of hazardous waste take proper measures for its lawful disposal.
Responsible Agency: Fire Department, in coordination with lead agencies
Schedule: Ongoing

Program PS 6.2.3
In review of new development projects, evaluate the potential for soil contamination and require mitigation measures as appropriate.
Responsible Agency: Planning Division, Engineering Division, reviewing authority
Schedule: Ongoing

Program PS 6.2.4
Assist in informing the public of procedures and methods of disposal for hazardous wastes.
Responsible Agency: Planning Division, Fire Department, Public Works Department.
Schedule: Ongoing

GOAL PS 7

A safe and secure environment for the City through the provision of adequate law enforcement and fire protection services.

Policy PS 7.1
The City, through the Big Bear Lake Fire Protection District, shall provide fire prevention, suppression and emergency life support services for all persons and property within the boundaries of the District, and shall investigate all means of providing these services in an efficient and cost-effective manner.

Program PS 7.1.1
Analyze the feasibility and impact on the District of consolidation of fire protection services within the Valley.
Responsible Agency: Fire District and Governing Board
Schedule: Ongoing

Program PS 7.1.2
Provide input to other Valley-wide fire agencies within the Big Bear Valley regarding potential fire station locations to provide for future adequate levels of service throughout the Valley.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 7.1.3
Pursuant to adopted mutual aid agreements and to the extent feasible, assist Valley Fire Agencies and other outside jurisdictions by providing fire suppression equipment and personnel to protect the community.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 7.1.4
Support and encourage an educational program to enhance public fire prevention awareness.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 7.1.5
In conjunction with fire agencies within the Valley, establish standards for street naming and adequately illuminated, legible address numbers on structures, in order to facilitate and improve upon emergency response times.
Responsible Agency: Building and Safety Division, Fire District
Schedule: Immediate upon adoption; ongoing

Program PS 7.1.6
Monitor service levels with respect to needs for fire protection services in the City and make adjustments as needed to achieve appropriate response times.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 7.1.7
Plan for and construct a new main fire station in a centralized location to meet current and future needs for fire and emergency preparedness services.
Responsible Agency: Fire District and governing board
Schedule: 1998 and ongoing

Policy PS 7.2
Continue cost-effective efforts to provide prevention and protection for residential neighborhoods and businesses throughout the District.

Program PS 7.2.1
Maintain information on deficiencies in fire flow and water pressure throughout the District, and implement cost-effective improvements needed to correct these deficiencies.
Responsible Agency: City Engineer, Department of Water and Power, Fire Department
Schedule: Ongoing

Program PS 7.2.2
Incorporate needed and cost-effective water system improvements into the City's and Department of Water and Power's Capital Improvement Programs, and seek funding assistance for the improvements through State and Federal grants and loans, assessment districts, bond issues, and other means, including participation by the Improvement Agency, as appropriate.
Responsible Agency: City Engineer, Department of Water and Power, Finance Division
Schedule: Ongoing

Program PS 7.2.3
Require sufficient fire flow for new development proposals to meet current standards. For new residential development, standards may be met through alternative means as approved by the Fire District, which may include but are not limited to the following measures:
A. Require the developer to upgrade the water system;
B. Require installation of a monitored fire alarm system; and/or
C. Require installation of automatic fire sprinklers.
Responsible Agency: Fire District and reviewing authority
Schedule: Ongoing

Program PS 7.2.4
Require approved emergency access for all new development or phases thereof when deemed necessary for public health and safety, pursuant to Policy C1.2.l.
Responsible Agency: Engineering, Fire District and reviewing authority
Schedule: Ongoing

Policy PS 7.3
Maintain and implement standards for fire prevention through the development review and inspection processes.

Program PS 7.3.1
Annually review and adopt the appropriate edition of the Uniform Fire Code and adopt code amendments as needed to address local conditions.
Responsible Agency: Fire Department and Building and Safety Division
Schedule: Review on a yearly basis

Program PS 7.3.2
The Fire Department shall participate in the development review process by maintaining an active presence in the Development Review Committee.

Responsible Agency: Fire Department and Planning Division
Schedule: Ongoing

Program PS 7.3.3
Maintain and apply standard conditions of approval for all types of new development applications, and revise as needed to ensure compliance with current codes.
Responsible Agency: Fire Department and Planning Division
Schedule: Immediate upon adoption; ongoing

Program PS 7.3.4
Through the annual business inspection program, ensure on-going code compliance by businesses within the City.
Responsible Agency: Fire District
Schedule: Ongoing

Policy PS 7.4
Maintain, review and enforce standards for fire hazard areas and for areas with steep slopes.

Program PS 7.4.1
Enforce the City's adopted slope density ordinance (Ordinance No. 90-191) as it may be amended from time to time.
Responsible Agency: Planning Division, Fire District, reviewing authority
Schedule: Ongoing

Program PS 7.4.2
Continue to administer the City's weed abatement program under contract with San Bernardino County.
Responsible Agency: Fire District
Schedule: Ongoing

GOAL PS 8

Provision of a high level of law enforcement and related services for City residents, businesses and visitors, and a perception by the public that the City of Big Bear Lake is a safe place to be.

Policy PS 8.1
Increase public safety through crime prevention and law enforcement measures, involving the community as appropriate, and support the provision of legal and related services to complement law enforcement services.

Program PS 8.1.1
Encourage the utilization of crime prevention principles in the project planning and review process, as a means of providing increased security in residential, commercial, and industrial developments while preserving the community's rural character.
Responsible Agency: San Bernardino County Sheriff's Department and Planning Division
Schedule: Immediate upon adoption; ongoing

Program PS 8.1.2
Enhance public awareness and participation in crime prevention, encourage and promote the neighborhood watch program and Citizen Patrol, and other community oriented policing programs.
Responsible Agency: City Manager's Office and San Bernardino County Sheriff's Department
Schedule: Immediate upon adoption; ongoing

Program PS 8.1.3
Adjust staffing for law enforcement services as needed to maintain an appropriate level of public safety services in the City.
Responsible Agency: San Bernardino County Sheriff's Department, City Manager, City Council
Schedule: Ongoing, in conjunction with the budget process

Program PS 8.1.4
Target pro-active patrols in areas which merit special attention based upon needs for law enforcement and code compliance.
Responsible Agency: San Bernardino County Sheriff's Department
Schedule: Ongoing

Program PS 8.1.5
Encourage expansion of the Neighborhood Watch Program to help address the problems of property-related crimes in vacant residential structures.
Responsible Agency: San Bernardino County Sheriff's Department
Schedule: Ongoing

Program PS 8.1.6
Support the provision of legal services and community assistance which complement law enforcement, through ongoing coordination and funding support as deemed appropriate.
Responsible Agency: City Manager, City Council
Schedule: Ongoing

Program PS 8.1.7
Provide enforcement services to ensure compliance with municipal codes and ordinances, to protect public health and safety, preserve property values, and maintain a clean and orderly environment for City residents.
Responsible Agency: Code Compliance Division
Schedule: Ongoing

GOAL PS 9

Provision of community services to meet the needs of present and future City residents and enhance quality of life, including educational, medical, library, and City services.

Policy PS 9.1
Support the provision of all levels of educational opportunities for City residents.

Program PS 9.1.1
Assist Bear Valley Unified School District in identifying suitable sites for future facilities and offer planning and engineering assistance in reviewing construction and expansion plans for school facilities, to address drainage, traffic, land use compatibility and other considerations as appropriate.
Responsible Agency: Planning and Engineering Divisions
Schedule: Ongoing as needed

Program PS 9.1.2
In review of development near school sites, ensure that street and lot placement, grade, fencing and other design considerations are incorporated into the design so as to minimize potential conflicts with school uses.
Responsible Agency: Development Review Committee and reviewing authority
Schedule: Ongoing as needed

Program PS 9.1.3
As appropriate, the City shall pursue agreements with the District to assist in the joint use of land for school, community and associated park or recreation purposes.
Responsible Agency: Planning Division, City Attorney, City Manager, City Council
Schedule: Ongoing

Program PS 9.1.4
Cooperate with other jurisdictions and public or private agencies to work towards establishment of post-secondary educational opportunities within the City.
Responsible Agency: Planning Division
Schedule: Ongoing

Program PS 9.1.5
Facilitate location of pre-school and day-care facilities in appropriate areas throughout the community, so as to meet the child-care needs of the working population and provide for early childhood educational opportunities.
Responsible Agency: Planning Division to update Development Code
Schedule: Code update FY 1999-2000; implementation ongoing

Program PS 9.1.6
In order to encourage development of educational facilities, permit development of private educational uses which are found to meet the general educational needs of the community within residentially-designated zones, subject to approval of a Conditional Use Permit.
Responsible Agency: Planning Division to update Development Code
Schedule: Code update FY 1999-2000; implementation ongoing

Policy PS 9.2
Support the provision of adequate medical facilities to meet the needs of City residents, including ambulance and paramedic services.

Program PS 9.2.1
Evaluate and monitor response times for ambulance services in the City, and seek available methods of reducing response times to the extent feasible.
Responsible Agency: Fire District, City Manager's Office
Schedule: Ongoing

Program PS 9.2.2
Encourage development of health care services in the City and maintenance of existing services.
Responsible Agency: Reviewing authority; City Manager's Office
Schedule: Ongoing

Policy PS 9.3
Support provision of library services to meet the needs of existing and future City residents.

Program 9.3.1
Cooperate with the San Bernardino County Library System to assure that quality library facilities and resources are available to all residents within the Community.
Responsible Agency: San Bernardino County Library System, City Manager's Office, Planning Division
Schedule: Ongoing

GOAL PS 10

Provide accessible, convenient facilities for municipal services, and ensure that all City facilities comply with City development standards and design guidelines.

Policy PS 10.1
Ensure that all future expansion of City facilities complies with handicapped accessibility requirements, conforms with the zone district, meets the City's development and engineering standards, and conforms to good mountain design principles as contained in the Community Design Element.

Program PS 10.1.1
Evaluate all City facility development proposals to ensure compliance with applicable standards.
Responsible Agency: Development Review Committee, reviewing authority
Schedule: Ongoing

Program PS 10.1.2
Evaluate City facility needs annually in conjunction with review of the budget and Capital Improvement Program, and program improvements and facility expansions as needed.
Responsible Agency: City Manager, City Council
Schedule: Annually

GOAL PS 11

Maintain a high degree of readiness to respond to natural and manmade disasters.

Policy PS 11.1
Maintain and update the Emergency Preparedness Plan to keep it current with staffing and technical capabilities of the City and cooperative agencies.

Program PS 11.1.1
Revise the Emergency Preparedness Plan to comply with the State's Standard Emergency Management System (SEMS), and update the plan from time to time as needed to stay current with State guidelines and local needs.
Responsible Agency: Fire Department
Schedule: Revise Plan 1999; implementation and updates ongoing

Program PS 11.1.2
Provide for backup power generation in the event of power outages due to local or regional disasters to support the City's Emergency Operations Center and other critical municipal facilities.
Responsible Agency: Fire District; Building and Safety Division
Schedule: Ongoing

Program PS 11.1.3
Coordinate the City's Emergency Preparedness Plan with plans of the County and State's Offices of Emergency Services, to ensure ongoing compatibility of response plans.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 11.1.4
Train City staff on SEMS procedures and emergency response.
Responsible Agency: City Manager's Office and all departments/divisions
Schedule: Ongoing

Policy PS 11.2
Coordinate with Caltrans, the Sheriff's Office, the County Road Department and the California Highway Patrol and other appropriate agencies to evaluate and establish emergency routes and plans.

Program PS 11.2.1
Appoint a liaison with Caltrans, the Sheriff's Office, the County Road Department and the California Highway Patrol to facilitate the establishment of emergency evacuation routes, and to provide for the development of an emergency response plan that assures the timely repair of state highways and other major thoroughfares damaged by a natural or manmade disaster.
Responsible Agency: City Manager's Office, Engineering Division
Schedule: Ongoing

Program PS 11.2.2
Consult with Caltrans, the Federal Highway Administration, FEMA and the Army Corps of Engineers regarding potential funding assistance, grants, and/or loans for the construction, repair, and/or upgrading of bridges, floodways, dams, cut slopes and other structures to minimize the potential isolation of the community and surrounding facilities.
Responsible Agency: City Manager's Office, Engineering Division, Caltrans
Schedule: Ongoing

Policy PS 11.3
Cooperate with other agencies in the preparation and dissemination of public information materials to assist residents and business owners in responding to local disasters.

Program PS 11.3.1
Coordinate with San Bernardino County, Municipal Water District, BBARWA, and other agencies and utilities in the development and dissemination of information and instruction on how to prepare for an emergency and on appropriate actions in the event of a local disaster.
Responsible Agency: Fire District
Schedule: Ongoing

Program PS 11.3.2
Evaluate the feasibility and fiscal impact to the City of participating in the nationwide CARES program (Community Assistance and Response to Emergency Situations), and implement the program as funding allows.
Responsible Agency: City Manager's Office, Fire Department, City Council
Schedule: As funding permits

Policy PS 11.4
Coordinate with both commercial and private broadcast operators, including ham radio operators, to maintain an Amateur Radio Civil Emergency Service.

Program PS 11.4.1
Contact, coordinate and integrate public and private broadcast operators in the maintenance of an Amateur Radio Civil Emergency Service (RACES) system to provide coordinated communication in the event of an emergency.
Responsible Agency: Fire Department
Schedule: Ongoing

Policy PS 11.5
The emergency preparedness planning process in the City of Big Bear Lake shall include the Big Bear Airport as an important possible alternative means of access into the Valley, in the event of a local disaster.

Program PS 11.5.1
Develop contingency plans to utilize the Big Bear Airport in the event of a local disaster, and provide for a coordinated plan of response, when it becomes necessary to place the airport in an emergency response mode.
Responsible Agency: Fire District
Schedule: Ongoing

COMMUNITY DESIGN ELEMENT

COMMUNITY DESIGN ELEMENT

PURPOSE

The Community Design Element establishes goals and policies to help the City shape its overall form and appearance in accordance with the community's fundamental values. The standards and guidelines contained in this element are intended to improve the functional and aesthetic quality of the built environment for City residents, visitors and businesses.

The process of designing a community is a continuous one, with each development decision contributing to the city's form and quality of life. To successfully achieve good community design requires involvement of both public and private development interests, and presents aesthetic, economic, political and administrative challenges. Design guidelines must accommodate features unique to each individual project, while maintaining a consistent standard of quality throughout the City. They must be applied equitably to each project, but they should not unduly limit opportunities for business and housing development. Guidelines must be clearly stated and simple to apply, while avoiding rigid dictums in favor of flexibility.

Despite the difficulties of drafting and implementing community design policies, the benefits to the City of doing so outweigh the obstacles. If they are carefully crafted and equitably applied, such standards can help create an environment where people want to live, work, shop and recreate; a community attractive to businesses, where property values consistent with a high quality of life are established and maintained. The Community Design Element has been prepared to reflect sensitivity to community quality, the environment, and a desire to preserve the best qualities of the City, while addressing the more practical and functional needs of its residents, businesses and visitors. Certain design concepts are particularly important to the character of a mountain resort community, in order to establish links between the built environment and significant natural assets and resources. As a resort community, Big Bear Lake's visual character is vitally important to its economy.

Although the design of a development project is often considered to be only an aesthetic concern, the implications of design decisions often have more far-reaching impacts on a community. Effective design can maximize use of a site and decrease construction costs, provide convenience to users and ensure compatibility with adjacent uses, and protect natural resources while allowing managed growth to occur. More importantly, the cumulative impacts of design decisions applied over time will influence whether a city develops as an attractive, functional and thriving community, or whether sterile, blighted or neglected conditions are allowed to develop.

It should be emphasized that the intent of the Community Design Element is not to establish a uniform architectural style within the City of Big Bear Lake. Rather, the element is intended to establish guidelines for developers, staff and decision makers to use in evaluating whether development projects meet the design goals of the City for functional, efficient and attractive development, in keeping with the mountain environment.

BACKGROUND

The Community Design Element is an optional element of the City's General Plan, as authorized by Section 65303 of the California Government Code. Policies within the element may relate to land use, circulation, environmental resources, housing or other issues which are addressed throughout the General Plan; the element is consistent with the other General Plan elements, and should be used in conjunction with them in formulating future land use decisions affecting the City.

The City has adopted a number of regulations and design guidelines since incorporation, including standards for development in the City's Development Code, Design Review Ordinance No. 88-161, and design guidelines for the Village and Moonridge Specific Plans. Relevant policies and guidelines from those documents have been included in this element, to the extent that they apply citywide.

City Design Standards and Procedures to Date

The City of Big Bear Lake first adopted community design standards in 1985 and established an architectural review committee during the mid-1980's to review development projects. Ordinance 88-161, adopted in June, 1988, established the Planning Commission as the design review authority for most new development, with the Community Development Director designated as the reviewing authority for minor design review projects. Ordinance 88-161 required design review for all new construction or reconstruction of buildings within commercial, industrial and residential zone districts, except that single-family residential structures not located along designated scenic highways or on the lake-front were exempt from the ordinance. Signs were also subject to design review under the ordinance. In October, 1994, the City adopted Ordinance No. 94-252 to delete the design review requirement for single family homes along the lake front.

The Design Review Ordinance established the following general review guidelines for new development:

- Projects should use appropriate scale and spatial relationships, and create visual interest along the streetscape;
- Development should be complementary to existing uses and be visually pleasing;
- "Garish colors at substantial deviance to the rest of the neighborhood" are not allowed;
- Materials evidencing quality and originality are encouraged, including use of textured siding; use of metal as an enhancement material is acceptable, although metal buildings are not; and paint is not to be used as a replacement for textured surfaces;
- Screening of mechanical equipment is required;
- Accessory buildings and structures are to be consistent with the design of primary structures;
- New development should respect neighboring properties' privacy, quiet, function and views with respect to loading and trash areas and other potential nuisances;
- Circulation and parking areas are to be efficiently designed, including truck maneuvering and drive-through lanes, so as not to impact adjacent rights-of-way;

- Landscaping should be provided over the entire site and remain attractive through changing seasons; it should be used to screen parking and storage areas and shade parking lots, and use of native plant materials is encouraged;
- Designs should show concern for passive solar orientation and energy conservation;
- Designs should show consideration of snow conditions, including snow storage, steepness of accessways and locations of entries;
- Site features such as creeks, topographic features, trees and views should be incorporated into project designs, and buildings should harmonize with topography to minimize grading;
- Size and scale of signs must be harmonious in terms of design, colors and materials; signs should reflect the mountain environment and should not dominate building appearance.

Additional design guidelines were established for the Village Specific Plan in 1987, which required design review for all exterior changes to buildings in the Village area except for repainting with the same color, reglazing, re-landscaping, re-roofing, minor exterior remodels, demolition and changes to exterior mechanical equipment (provided that such equipment is screened). All single family and two-family dwelling units are also exempt from design review in the Village. In practice, design review has been used primarily for new construction in the Village, and has not been required for repainting of existing buildings.

Design guidelines in the Village Specific Plan encourage "richness of surface and texture; play of light; harmonious contemporary architecture; pedestrian orientation; and pitched, multi-planed roofs," among other elements. Discouraged are deep front setbacks, highly reflective surfaces, Spanish or ranch-style architecture, large blank walls or metal surfaces, flat roofs, adobe, slump stone, exposed concrete block, chain link fences and elements of Mediterranean architecture such as barrel roof tiles and heavily textured plaster walls. The document promotes a "Big Bear Theme" of architecture which is to include use of roof overhangs, two-story building height, pitched, multi-planed roofs with gable ends facing the street, use of horizontal and diagonal wood, split stone veneer treatments, heavy-looking structural timbers, exposed rafter tails and large expanses of glass. In terms of building materials and colors, the Village Specific Plan promotes use of textured materials, including wood, stone and brick, and use of uniform, harmonious colors such as forest greens, grays, browns, rust shades and white. Also addressed are site design, building placement, landscaping, parking and signs.

The Village Specific Plan discusses architectural themes in the Village, identifying Western and Bavarian as the two prevalent design themes. "The Western style originates from Big Bear Valley's history of gold mining and the towns and settlements that grew as a result. The imported Bavarian design concept arises from the mountain atmosphere of Big Bear and the alpine winter sports activities that are so predominant yet special for Southern California" (Village Design Guidelines, page 10). In order to unify the Village into an identifiable district despite varying architectural styles, a Village streetscape concept was included in the document to address decorative paving materials for walkways, decorative light fixtures, street trees, planters, benches, directional signs and street furniture.

With respect to use of natural vegetation in community design, the citizens of Big Bear Lake have expressed concern over the loss of mature trees in developed or developing areas. This concern led to the adoption of a comprehensive Tree Protection Ordinance in 1992 (Ordinance 92-244), which establishes procedures for obtaining a tree removal permit, findings for allowing tree removal, general prohibitions against indiscriminate injury to trees, provisions for in-lieu fees and off-site mitigation, disposal of removed coniferous trees and protection of trees during construction. The ordinance also safeguards trees used as eagle habitat and provides a method to designate significant trees. As noted in the Biological Resources Chapter, the City will review and update the Tree Protection Ordinance as needed to ensure tree preservation within the community.

The Moonridge Specific Plan, adopted in 1996, contained design guidelines for new development within the boundaries of that specific plan. As explained in the Land Use Element, portions of the Moonridge Specific Plan were found to be infeasible to implement, and the specific plan will not remain in place after adoption of this General Plan. However, some of the design guidelines were felt to be applicable to development City-wide. The areawide design guidelines in the Moonridge Specific Plan addressed the following issues:

- Site configuration should consider access to transit facilities, weather, trees and views;
- Building orientation should consider existing vegetation and solar radiation;
- Use of sloped roofs with eaves and a varied roof plane;
- Enhancement of building entries;
- Use of traditional window shapes;
- Use of darker, textured materials and colors;
- Use of decorative logs, masonry, wood, brick or stone building materials, and use of wood, ceramic or slate shingles and metal standing-seam roofing materials; and
- Use of selected plant materials which are native or compatible with the mountain environment.

The Moonridge Specific Plan also contained specific design concepts for particular subareas; however, since these are based on characteristics of each subarea, they are not as applicable to the planning area as a whole and have not been included in this element.

These documents establishing design standards and guidelines provide a useful foundation for this Community Design Element, by outlining the City's goal to achieve a built environment compatible with the natural mountain setting. In many cases the earlier design guidelines were specific and gave direction to applicants and decision-makers regarding what elements of design were desired. Some of the guidelines, however, used more subjective terms such as "harmonious", "compatible" and "appropriate", which are somewhat difficult to interpret and implement. It is the goal of this Community Design Element to provide specific design objectives where possible, in order to ensure clarity and consistency for all new development projects.

GENERAL DESIGN PRINCIPLES

When people think of memorable cities where they have lived or visited, they may recall the natural beauty of the surroundings, the public places where people gather, the community life on the streets, the variety of architecture, the things to do and see, or just the "atmosphere." Great cities and towns have a "sense of place" that is distinctive and memorable. These communities are attractive to visitors, residents and businesses because of the value placed on quality of life.

City planners have long tried to define the characteristics that contribute to the creation of places where people want to be. Numerous studies to identify what qualities draw people into certain urban places have reached similar conclusions. People seem to like places that are orderly and understandable; where building placement and massing creates a sense of unity and balance at a human scale; where links exist between places, providing connections instead of dead ends; where diversity of architecture, uses and activities creates interest; where people feel comfortable, protected from the elements and provided with places to sit, eat and converse; where they feel safe, with various access points provided and other people nearby; where building materials and construction feel authentic, substantial and timeless; and where people can travel and conduct business without major inconvenience, time or effort. In short, people like places that are well-designed. The experience of many cities has demonstrated that an attractive, functional and well-designed urban environment will draw a mix of users and create a synergy contributing to a successful community that flourishes both economically and socially.

In his book *Rebuilding,* architect Daniel Solomon wrote that "buildings alone don't matter; it is only the ensemble of streets, lots and buildings, and the way they fit together, that comprise the basis of town making." The building blocks of structures, sites, streets, neighborhoods and districts must be considered in design decisions, rather than focusing only on the architectural treatment of any single building. A site can function well within its neighborhood context, even if it is not architecturally remarkable; conversely, an architectural masterpiece may feel out of place if it does not reflect the scale and character of the surrounding neighborhood. The Community Design Element is intended to provide a basis for evaluating planning decisions at a level between land use map designations and architectural building details, in order to ensure that new development functions well in its setting. General design principles for guiding development in Big Bear Lake are contained in Goal CD 1 and the accompanying policies. The most important of these is Policy CD 1.1, which requires that each development project be evaluated in relation to its context and setting, rather than as a stand-alone project, in order to create cohesive districts and neighborhoods within the City.

The policies contained under Goal CD 1 should be considered in each development decision, for residential, commercial or industrial uses, for capital improvements by the City, and in all geographic areas of the City. If applied equitably and consistently, these principles will assure that new development contributes to rather than detracts from Big Bear Lake's community character.

CITYWIDE DESIGN OPPORTUNITIES

Gertrude Stein once wrote of a city that when you arrive there, there's no "there" there. Features within a city which make it unique and identifiable as a separate community must be created and enhanced, in order to avoid eliciting a similar reaction from visitors and residents.

Big Bear Lake's natural setting offers many opportunities to create a sense of place. Its mountain location adjacent to Big Bear Lake is enhanced by towering pine trees, views of snow-covered hillsides and flowering mountain meadows, blue skies, clean air and abundant wildlife. In addition to its natural advantages Big Bear Lake has a colorful history, evolving from an Indian gathering place to mining center to resort community. The City of Big Bear Lake can capitalize on these attributes to enhance its community identity.

Design opportunities which can be developed for the City as a whole include streetscapes, entry points and gateways, views of the lake, creation of significant focal points, preservation and enhancement of landmarks, links with the natural open space surrounding the City, use of landscaping and signage, and treatment of State Highway 18 (Big Bear Boulevard.) These elements can influence the image of the city and help create a distinctive identity. Goal CD 2 and the accompanying policies are intended to provide a basis for creation of community-wide design elements which will enhance Big Bear Lake's community character.

CITYWIDE DESIGN GUIDELINES

In order to achieve design of each site within the City which complements the mountain environment and is convenient for users, visually attractive and compatible with adjacent development, certain design considerations should be applied citywide. These include the following issues.

Site Design Issues

All development within Big Bear Lake should be designed to fit into its natural setting. Buildings should be oriented and massed for maximum exposure to winter sun and protection from wind and temperature extremes. The extent, density and scale of development should reflect the capability of the site to support it. Site design should respect the topography and special site features such as trees, views, natural drainage courses and protected plants. Building massing and form should take into account the shape and scale of surrounding natural landforms. Grading and modification of natural terrain and watercourses should be minimized, and landscaping should be designed to integrate with any surrounding natural open space.

Climate Considerations

Because of the cold winter temperatures and snow conditions in Big Bear Lake, site design should consider the presence of snow and ice during winter months. Each site should be designed to

provide adequate snow storage areas. Road and pathway gradients should be designed to avoid icy conditions in areas of permanent shade. Outdoor spaces should be configured to allow for efficient snow plowing without damage to signs, light fixtures or other features. Drainage should be designed to direct snowmelt away from circulation paths. Building entries and outdoor areas should be protected from falling snow and icicles, and should not be located in areas of permanent shade which will become icy in winter. Landscaping should be planted to avoid damage by snow blowers, plows and snow shed from adjacent roofs, and away from snow storage areas.

The need for adequate snow storage areas should be considered early in the site design, preferably in consultation with maintenance staff who will handle snow plowing. Ideally snow storage areas should be on gently sloping, unpaved ground free of trees; if the area is too flat it will become boggy in the spring, and unpaved surfaces will allow partial absorption. Snow stored in sunny areas will melt more quickly than in permanently shaded areas. Snow storage should not block pedestrian paths, or separate pedestrians from store windows and entrances. Meltwater should not be allowed to obstruct walkways or building entrances. Snow storage areas should be easily accessible to snow plows on pavement, to avoid plows getting mired in mud. It is preferable to have smaller snow dump areas well-distributed over a site than only a few larger storage areas, because large piles of wet snow are extremely difficult to move once they have frozen. If underground drains are used to convey meltwater off a parking lot, catch basin grates should be placed in plowed, paved areas so they can be kept clear. Many cities in mountain areas require additional spaces in parking lots to account for snow storage, ranging from 10 to 25 percent more area required; however, this requirement is not deemed necessary in Big Bear Lake because most of the time snow accumulation does not impact parking lot capacity.

Parking areas should be designed in consideration of snow plowing operations. Small, narrow planting areas should be avoided in favor of larger planting strips which border or divide blocks of parking spaces. Parking lots should be adequately drained, avoiding the use of catch basins which can become blocked. Continuous curbing around parking lots is discouraged for drainage purposes. Snow storage should be provided at the ends of parking lot aisles. Meltwater should not be directed to the center of aisles, where it will freeze and cause pedestrian and vehicle circulation problems.

Walkways and amenity areas designed for pedestrians must also consider winter snow and ice conditions. Pedestrians should be protected from wind and blowing snow, slick pavement, sliding vehicles, and snow and icicles falling from roofs. Pedestrian walkways should be oriented for maximum solar exposure, away from the north sides of buildings or other permanently shaded areas. Sidewalks should be wider to allow for snow storage. Any benches, posts, trash receptacles and signs within the sidewalk should be placed in a continuous strip to allow for more efficient snow removal. Moveable benches are preferred, which can be removed during snow conditions. Walkways should be set back from the street edge. Any grade variations such as steps or ramps should not be located in shaded areas, or they should be protected with a roof overhang or canopy, and provided with double sets of handrails. Outdoor spaces and walkways should not be placed directly beneath a roof which pitches in that direction, unless they are protected from falling snow

by a roof overhang strong enough to hold the snow (awnings will not suffice for this purpose). Shedding snow and roof water should be directed to planted areas, where feasible. Asphalt walkways melt faster than concrete, due to their darker color. Gravel walkways are discouraged due to the difficulty of snow removal. Textured pavement is preferred over smooth pavement or wood walkways, for better traction during icy conditions.

Architectural Design

Architectural choices should be shaped by a community's own culture, attitudes, history and values, as well as the context and function of each building. Since the mid 1980's, Big Bear Lake has established a tradition of design which reflects its mountain setting in terms of building shapes, colors and materials. The City wishes to create and preserve its own identity and community character, especially in the face of corporate architectural designs proposed by national commercial chains for local outlets. Architectural goals of the City are to encourage pragmatic building forms and use of indigenous materials which counteract the cold, protect from natural hazards, prolong the life of structures, and reduce discomfort of users.

Building materials should include the use of wood and stone. These materials have been used historically in mountain settings throughout the world, and are typical of good mountain design. Traditional wood construction techniques in mountain areas have included post and beam buildings used in northern Europe; log construction used throughout northern Europe and Asia from Scandinavia to Japan, and in frontier areas of North America; and timber-frame construction with its distinctive grid of exposed studs, typical of Germany, Holland, Denmark and England. Wood was also the primary building material in the camp buildings constructed by the National Park Service and in mountain resorts throughout the United States. Stone has also been used extensively in mountain dwellings. Stone houses are common in Europe, and half-stone, half-timber houses are found in central European countries. Stone fireplaces, foundations, wainscots, steps and other features are commonly found in the Big Bear area and lend a feeling of permanence and stability to mountain architecture.

Discussions of mountain architecture often focus on two design types: the Alpine style and the American Frontier/Rustic style. Both of these styles encompass a diverse array of characteristics resulting from a cultural mix often found in mountain regions as well as varied architectural responses to climate and local materials. To the extent that these styles share certain characteristics which are functional within mountain settings, both reflect useful design solutions for mountain communities. Both styles have been used in Big Bear Lake, and are recognized in the Village Specific Plan. Therefore, both are discussed in greater detail below.

The Swiss chalet is a typical Alpine stereotype which reflects functional design features for mountain environments. Typically the broadest facade of a chalet faces to the south for maximum solar exposure, with rows of windows placed on the south-facing wall for light and solar heating. The roof axis is oriented north and south, to expose both sides of the roof to equal sun. Balconies

and outdoor stairs are shielded from snow by roof overhangs. The pitched roof slopes at a gentle angle to minimize show shed, allowing snow accumulation for insulation. Buildings are wide and shallow, with a solid ground-hugging appearance. The following design features of Alpine architecture may be useful if properly applied in building designs for Big Bear Lake:

- A large, all-enveloping gable roof which covers balconies and walkways;
- Broad building exposure to the south, and use of windows on south-facing walls;
- Use of balconies protected by roof overhangs, with decorative railings;
- Use of wide roof overhangs and exposed rafter ends;
- Use of small, rectangular, multi-paned windows which are symmetrically arranged.

The Swiss chalet is only one of many indigenous styles of architecture developed in the Alpine region, which was a meeting ground fostering cultural exchanges among many European peoples. Renaissance styles and stonemasonry techniques from the south combined with Scandinavian log craft and half-timbering techniques from the north, and Alpine architecture evolved into a mosaic of styles. The cultural integration evidenced by Alpine architecture can serve as a model for good mountain design, in the sense that no one style or building technique needs to dominate mountain architecture. Rather, there are many design solutions to building in mountain conditions, and a mix of cultural and historical traditions can create a built environment which reflects an area's cultural diversity.

The prototypical building type of the American Frontier/Rustic style is the log cabin, which was used throughout frontier settlements in the United States and Canada. An architectural refinement of the primitive log and stone cabin was developed in the Adirondack Mountains around New York's Lake Placid region. Known as the Rustic style, this design was used extensively in federal building projects from 1910 through the 1950's, including national park buildings at Yellowstone, Yosemite, Grand Canyon and Jackson Hole, and in many WPA and CCC projects. The Rustic style is characterized by use of broad, shallow pitched roofs designed to hold snow as insulation; wide eaves; overhanging upper floors and balconies; use of logs and indigenous stone for foundations and chimneys; simply-proportioned window and door openings which are small to protect from heat loss; large covered porches; use of oversized log pillars and roof beams to support heavy snow loads; extended eaves to prevent ice and snow buildup against the foundations; and use of covered walkways between buildings. As with the Alpine style, many variants exist of the rustic style which reflect cultural contributions from Native American, Oriental, Prairie, Shingle and English cottage styles. Although the Rustic style appears different from the Alpine style in its use of ornamentation, there are many shared characteristics in terms of sloping gabled roofs, wide eave overhangs, covered balconies and walkways, and simple, symmetrical window arrangements.

As noted above, it is not the City's intent to unduly limit architectural diversity or to demand a single building type or style. However, a review of mountain design styles indicates that certain architectural features are both functional and attractive in mountain settings. These features will be encouraged in the City of Big Bear Lake.

Colors

Building colors used in Big Bear Lake should enhance the natural setting rather than detract from it by drawing a viewer's attention to any particular building. The use of bright, intense primary and secondary colors, fluorescent colors and other shades not typical of the mountain environment as the dominant building color will be strongly discouraged, although brighter shades may be used for accent treatments. Roof colors should not dominate the skyline or create highly visible focal points when viewed from the lake or mountains overlooking the City. Bright or light shades of blue, green, red and other visually dominant colors will be strongly discouraged for roofing materials; roof colors should be more subdued and typical of the darker shades of green, brown, grey, tan or slate-blue found in the natural mountain environment.

The goal of the City in encouraging use of colors consistent with the mountain environment is to create a community in harmony with its setting, where the buildings taken together create a pattern of development which complements the outstanding natural beauty of the Big Bear Valley.

Transitions Between Uses

Another goal of the Community Design Element is to ensure that appropriate design features are incorporated into new development to buffer less intensive uses from more intensive uses, where such uses interface. This situation occurs along major portions of Big Bear Boulevard, where commercial uses fronting the highway back onto residential uses. Where commercial or industrial uses abut residential uses, appropriate transition areas should include the use of setbacks, landscaping, fences or walls, control of lighting, screening of parking, loading and trash areas, and sound attenuation features where necessary.

Screening Requirements

Policies have been included to ensure that equipment, utilities, trash areas, loading areas, service bays, outdoor storage and other potentially unsightly features are adequately screened from public view. Such screening may be done through placement of buildings and structures on the site, construction of walls or fences, landscaping, rooftop design, berms, variations in grade, or a combination of these and other means. These policies will be applied to new development in the multiple family, commercial, industrial and public land use designations.

Signs

Design control for signs has been in place in Big Bear Lake since 1983, when the City adopted its first sign ordinance. Since that time various approaches to sign control have been used, with mixed success. Always a controversial issue, sign control has been variously viewed by residents and businesses as too stringent or too lenient, and subsequent sign ordinance revisions have been adopted

to respond to changing community values with respect to business needs and aesthetic considerations.

The City's first sign ordinance was Ordinance 83-87, which was first amended by Ordinance 85-115 and later amended by Ordinance 96-272 in 1996. The Village Specific Plan, adopted in 1987, also contains sign requirements for businesses located within the specific plan boundaries. The 1985 sign ordinance established a point system for sign review, under which points were awarded for various characteristics of proposed signs. This approach was abandoned in 1996 in favor of a sign review process more like the 1983 ordinance. In 1996, the City adopted the Moonridge Specific Plan (MSP), which contained sign standards for the specific plan area which were more restrictive than in the rest of the City. These standards were opposed by businesses in the MSP area because of the perceived lack of an "even playing field" for signs throughout the City. In 1998, the City proposed an additional sign ordinance amendment which was opposed by members of the business community, due to its proposed enforcement procedures. After several meetings with concerned business owners and the Chamber of Commerce, the City withdrew the proposed1998 sign ordinance, and adopted Resolution 98-46 in October, 1998 allowing interim use of temporary signs until such time as the sign ordinance is again amended. With regard to the restrictive sign standards in the MSP, those standards will be repealed along with the Specific Plan upon adoption of this General Plan.

Under the City's current sign ordinance, a $25 sign permit must be obtained from the City prior to erection of a new sign, along with a building permit if necessary for structural or electrical improvements. Major deviations to sign standards may be granted by the Planning Commission, and minor deviations may be approved by staff. Appeals of staff decisions on sign permits are heard by the Planning Commission. Unmaintained and abandoned signs are subject to nuisance abatement procedures. Violations of the sign ordinance are enforced as infractions. Signs are to be compatible with the building in terms of design, color, placement and proportion. Lighting should not be excessive. The use of ironwork, trim, wood, a shingled roof or other similar design features is encouraged. A landscaped area or planter is required at the base of freestanding signs. Prohibited signs under the current ordinance include A-frames, flashing signs, signs shaped like products, hand-held and sandwich signs, vehicle signs, signs in public rights of way and on natural features, and sound-emitting signs.

Some business owners take issue with the current sign ordinance provisions prohibiting A-frame signs, banners, bunting and other temporary commercial signs; the requirement for a sign permit for a change of copy only; restrictions on the area of the sign used for prices and advertising; and the requirement that deviations from the sign ordinance be approved by staff or the Planning Commission. In addition, some business owners object to the requirement for a sign permit for any sign, and propose that any dispute over signs be forwarded to an arbitration board made up of business owners.

Policies regarding signs are included in this element to affirm the City's goal to provide for a simple, inexpensive and timely process for issuing sign permits, while ensuring that excessive signage does not adversely affect the scenic landscape of Big Bear Lake. The City's appearance is a major component of its economic viability as a visitor-oriented destination resort, and aesthetically-pleasing roadways and business districts are key to maintaining and enhancing the local economy. Therefore, some level of sign control is determined to be necessary for economic as well as aesthetic reasons. At the same time the City has no desire to prevent local businesses from exhibiting adequate signage, or to create hardships for local merchants. The City will continue to seek input from the community to formulate sign standards that balance the needs of business with the need for aesthetic controls, and to update those standards as often as needed to reflect changing conditions in the community.

DESIGN CONSIDERATIONS FOR SPECIFIC LAND USES

Residential Design Issues

Single Family Residential Design Issues

The design of housing contributes to the overall character of the mountain environment. The best examples of mountain architecture from throughout the world show an inherent sensitivity to the landscape through use of local materials, consideration of snow and wind conditions and solar exposure, orientation of buildings to take advantage of views and natural features, and use of native plant material. The earliest houses in the Big Bear Valley demonstrate these principles. Because local timber was plentiful, turn-of-the-century settlers typically constructed wood frame houses, sometimes sheathed in vertical, bark-covered siding. Examples of this construction type are still found throughout the community. Log cabins, the first structures in the mountains of the American West, were also common. In the 1930's, a local builder and lumber dealer named Guy Sherman Maltby established a vernacular style unique to this area. Through creative Federal Housing Administration (FHA) financing he built over 300 cabins in the Big Bear Valley. These modest, well-built homes were intended for summer vacationers. The typical Maltby cabin had a rectangular floor plan, a covered porch, and rust-colored siding milled from local timber to look like half-logs. Maltby homes were remarkable for their attention to detail and extensive use of native stone, particularly for the porches and large, well-designed fireplaces. Fortunately, examples of this local architecture have been preserved through individual rehabilitation and repair efforts.

Recent building trends in residential areas show a diverse array of architectural styles, as home owners and builders have constructed individualized custom homes on single lots. Most single-family residential construction is not subject to design review by staff or the Planning Commission, and standards for architectural style, materials, colors or design have not been applied to these uses. In general the City has not experienced problems with design in single family residential areas, and does not propose to initiate design review procedures for new single family homes. However, a few design issues have been identified which are addressed in the policies of this element. One issue

relates to proposals to subdivide existing lots in residential subdivisions into smaller lots by creation of a flag lot, meaning a lot which is located behind lots which front the street and which is connected to the street by a narrow strip of land (the stem of the "flag" lot) containing an access drive. In some cases these subdivisions have been proposed in steep areas where emergency access would be difficult, and the resulting lots would be less than the standard size of 7200 square feet. In addition, allowing this type of subdivision could have the impact of increasing overall density in residential areas. Because of these concerns, design guidelines for creation of flag lots have been included in the element.

Another design issue for single family homes is the scale of proposed homes relative to the size and shape of the lot and setback requirements. Occasionally home builders request to place homes on existing lots which cannot meet setback requirements, due to the area or configuration of the proposed dwelling unit and/or lot. It is the City's policy to encourage design of homes which can fit on the lot in consideration of lot proportions, where possible. In some cases variances may be warranted due to exceptional circumstances; however, the "over-building" of lots with structures that may be too big for the lot is not encouraged.

Mobile homes within single family residential areas have the potential to create design incompatibility if they are not enhanced architecturally to blend with the surrounding neighborhood. State law precludes the prohibition of mobile homes in residential zones; however, a city may adopt minimum residential standards to ensure that mobile homes and manufactured housing units conform to City design criteria. Typically these criteria include placement of all dwelling units on permanent foundations, use of approved roofing and siding materials, a requirement for covered parking, a requirement for eaves, and other similar standards. It should be noted that the City cannot establish standards for mobile homes in excess of standards for conventional dwelling units; therefore, residential design standards must be applied equitably to all dwelling units. The standards can be enforced by the Building and Safety Division during plan check and prior to issuance of building permits for residential construction.

State law also requires that cities make provision for second dwelling units on single family lots, under certain circumstances. For example, dependent housing units must be allowed for care of elderly relatives or other dependents; however, as with mobile homes, state law allows cities to regulate the design of these units. Therefore, design criteria for second units have also been included in the element.

Finally, concern has been expressed occasionally by residents regarding painting of homes with bright or intense colors, such as red, blue, yellow, green, orange and purple, as the dominant building color. Some residents feel the appearance of these structures negatively affects the character of and property values within neighborhoods. Therefore, policies have been included recommending the use of earth tone and natural colors within residential neighborhoods.

Multiple Family Residential Design Issues

There are currently about 1200 attached or multi-family dwelling units in the City, most of which were built prior to 1986. In terms of architectural treatment, colors and materials, most of these multiple dwelling units conform with the City's desire to encourage the use of wood, stone, earth-tone colors and visual relief. Other design issues which should be considered in reviewing future multi-family development include requirements for usable open space, children's play areas, conveniently-located service and parking areas, and the security of residents through crime-prevention techniques which can be incorporated into site design. Crime prevention through environmental design can be accomplished by delineating public space from private space, providing visual surveillance of public areas, use of adequate lighting, avoidance of dead-end walkways and drive aisles, provision of adequate emergency access, and elimination of places for people to hide on the site. Designs should consider how multi-family projects can integrate into the surrounding neighborhoods, in order to encourage interaction between residents and adjacent uses. Site designs which provide barriers around the perimeter of multi-family developments, such as unbroken rows of carports, parking areas and solid fencing, do not encourage community interaction. While fencing and gates may be needed in some areas to provide security, consideration should be given to creating neighborhoods rather than self-contained enclaves.

Mobile Home Park Design Issues

Approximately three percent of the City's housing stock is provided by mobile homes and manufactured housing units, most of which are located within mobile home parks. As with multiple-family units, most of the mobile home parks within the City were developed prior to the mid-1980's, and the City has not dealt with design issues for mobile home parks in recent years. Many of the design guidelines for single family and multiple family neighborhoods are applicable to mobile home and manufactured home developments. The concepts of connectivity, recreational amenities, diversity of design, landscaping, convenient access, pedestrian and transit connections and creation of neighborhoods should be applied to any new manufactured housing development. Therefore, a policy has been included requiring that such projects comply with the applicable residential design standards contained in this element.

Senior Housing Design Issues

Design of senior housing projects merit attention with respect to the special living needs of aging people. The City currently has one senior apartment complex, and future development of senior units is anticipated. One of the components of senior housing to consider from a design standpoint is the aging of the senior population within the complex. While residents may enter the units in a relatively active and healthy condition, they may stay until they reach advanced ages; during that time, their needs and abilities change.

Research on senior housing needs indicates that indoor living space is valued more than outdoor balcony space. Because seniors often enjoy work spaces for light carpentry, crafts and gardening, it is recommended that activity areas such as greenhouses, craft rooms and workshops with power tools be provided. Adequate storage is needed for residents. Door closers should be provided on each unit, but must be light enough for frail people to open. Frost-free, free-standing refrigerators are recommended, along with microwave ovens. Handrails and adequate lighting are a necessity. Any long hallways should be broken up visually to avoid confusion, with benches, plants and pictures to provide visual landmarks. Low thresholds should be used on doorways. Utilities are recommended to be included in the monthly rent, but separate metering should be provided for more equitable division of utility expenses. Parking ratios are recommended to be less than for standard multi-family development; many jurisdictions use a ratio of one space per three dwelling units. It is recommended that about 10 percent of the units be fitted for wheelchair accessibility, including bathroom and kitchen fixtures and lowered countertops. An alternative would be to make all units wheelchair adaptable. It is also suggested that front entryways and common areas be designed with a homelike atmosphere, avoiding an institutional look. Open space areas are most successful when they receive sun in all seasons, with shade trees and moveable seating available so conversation groups can form.

Property Maintenance Issues in Residential Areas

A challenge for the City in terms of community design in the older residential areas of town will be the preservation and enhancement of these areas in a safe, attractive condition. Especially in the older areas containing very small lots created in the 1920's, housing construction often does not reflect current building and seismic codes, and units have been modified with unpermitted additions and loft conversions which appear to create unsafe conditions. Property maintenance conditions have become a concern in some areas. Policies regarding property maintenance have been included in the element, and a future action of the City will be adoption of a property maintenance ordinance.

Commercial Design Issues

Several different types of commercial development have occurred in Big Bear Lake, each with distinctive design characteristics. The lodging and hotel industry, along with supportive visitor-oriented commercial uses such as restaurants, bike and ski shops and specialty retail, have generally made use of mountain-style architecture and materials. Many of the structures in visitor-oriented commercial areas have sloping gable-style roofs and use wood siding and rock or stone elements, along with mullioned windows and decorative window and door treatments typical of mountain areas. This type of commercial development is found along many portions of Big Bear Boulevard and Moonridge Road. When asked to identify buildings in the City which are pleasing in terms of design, residents often name buildings in this category.

Another style of commercial development is found in the larger shopping centers located on Big Bear Boulevard between Fox Farm Road and Stanfield Cutoff. Design elements have been

incorporated into these buildings to complement the mountain character, including use of wood siding and trim, sloping roof elements to accent entrance ways, and standing-seam metal roofing material. However, with their large, "big-box" style retail anchors, the layout of smaller tenant spaces in a linear fashion and large asphalt parking areas, these shopping centers are more typical of large-scale commercial development found throughout the country than of mountain design. When asked to identify buildings that do not achieve desired design characteristics in the community, residents often identify these buildings due to their long blank walls and lack of interesting architectural detail.

Another distinctive type of commercial development in Big Bear Lake is found in the Village, a grouping of shops, restaurants, hotels and service establishments generally bounded by Knickerbocker Road, the Lake, Paine Road and extending south of Village Drive. As noted above, the Village Specific Plan has established design guidelines for new development in this area which are intended to create a pedestrian-oriented environment for shopping, dining and entertainment. Design techniques to achieve a pedestrian scale include reduced street setbacks to bring shop windows and doorways close to the sidewalk, planting of street trees, landscape planters designed to provide for seating, decorative lighting fixtures, banners, and traffic calming through use of on-street parking and narrowing of the curb line at intersections. In general the community has expressed satisfaction with the design guidelines in the Village; however, concern has been expressed on occasion with respect to use of bright or intense colors on buildings, and the use of exposed concrete block as a dominant building material. The use of wood, stone and more natural colors appear to be preferred for the Village, as in the rest of the City.

Much of the commercial development in Big Bear Lake is over ten years old, and the site designs may not reflect the design standards adopted by the City in the mid-1980's. As a result, many of the commercial uses are non-conforming in terms of parking adequacy, building setbacks, provision of landscaped open space, adequate trash and loading areas, lighting and signage. A challenge for the City will be to determine how much flexibility can be afforded to existing non-conforming uses and buildings to allow continuation and enhancement of business opportunities, while meeting minimum standards for property maintenance, parking and visual appearance. To the extent that City design goals can still be met, the City will provide flexibility in the area of design standards for existing uses.

Another issue to be considered in commercial site development is the need to accommodate multiple transportation modes. Often commercial developments are designed to give priority to the automobile while offering little in the way of pedestrian pathways, shaded walkways and seating areas, or bicycle access and parking. In addition, public transit stops have not been provided with turnouts, benches or shade in many commercial locations, and convenient pedestrian access from transit stops to building entrances may be lacking. Site plans which set buildings back to the rear of the site and locate large parking areas adjacent to the street frontage do not invite pedestrian traffic, and discourage access by other than vehicular users. Within these sites there may be no clearly delineated walkways, and foot traffic must compete with automobiles for use of travel ways.

In those commercial areas where a pedestrian-oriented shopping environment is desired, this development pattern must be reversed. Buildings should be placed near the edge of pavement in order to provide interest and immediate access by pedestrians, while parking should be located behind the buildings or on the periphery of the district. Where appropriate, building setbacks should be flexible to accommodate the need for pedestrian-oriented commercial uses.

Another design issue for commercial development is the need for integration of each site into its surrounding area with respect to circulation connectivity, building placement, consistency of design features and landscaping. If individual site plans within a shopping area are properly designed, it should be possible for a customer to park a vehicle and walk to several places of business without having to drive from one to the other. Vehicles should be able to access various parts of a commercial development without exiting onto a public street. Each portion of a development plan should consider adjacent structures and their uses. For example, one building should not place its loading dock and trash compactor adjacent to another building's front door. If one site user has created a pleasant outdoor seating area for food service, another user should not erect an adjacent structure which permanently shades this area. Each site and building design should fit into its context, in order to present a unified image to the street and a convenient, pleasant environment for users.

Architectural features typical of mountain design, such as use of wood and stone, gabled roof lines, eaves and overhangs, covered porches and balconies and so on will be encouraged in new commercial development. In addition, attention will be paid to architectural details within the proposed design. Woodwork, lighting fixtures, signage, planters and architectural ornamentation should all be designed to create a cohesive, unified design theme.

Industrial Design Issues

Only a limited amount of land in Big Bear Lake is designated for industrial uses. Twelve acres of industrially-designated land are located on the land use map in the area generally bounded by Garstin Road, Fox Farm Road and Big Bear Boulevard. Several public uses are also located in this area which are of an intensity compatible with industrial uses, including the County building and yard, the City's public works yard and the Department of Water and Power. Other industrial uses in this area include a trash disposal company, paving contractors and industrial suppliers.

With respect to industrial uses, the City acknowledges that the services provided by these uses are necessary to support residents and businesses and that such uses may not be visually attractive because of the need for outdoor storage of materials and supplies, the use of heavy trucks and equipment and the need for large functional buildings. It is not the intent of the community design guidelines to unduly inhibit the operational needs of these uses. Rather, the element focuses on the need for adequate transitional areas to buffer these more intensive uses from adjacent, less intensive uses. These buffer areas should include adequate setbacks, landscaping and attractive fences or walls. In addition, security lighting used by industrial uses should not spill over onto less intensive

properties or roadways. Stockpiling of materials should not be visible from adjacent less intensive properties. Noise, dust, odors and other potential nuisances should be controlled. If these measures are taken, and if the interiors of industrial sites are not accessible to the general public, greater flexibility should be given to industrial users to design their sites to meet operational requirements. For example, it is more appropriate to require landscaping along the site perimeter than within the interior of an industrial site which is not publicly accessible.

Design of Public Uses

The Community Design Element addresses each type of land use in terms of layout, function and appearance. It is the City's intent that these same design considerations be applied to land within the public realm, including rights-of-way, public buildings and open spaces. A policy has been added to require any public facilities to comply with the applicable design guidelines of the City, in order to ensure that the community character which the City is attempting to achieve will be found in both private and public places.

FUTURE DIRECTIONS

Achieving the design goals outlined in the Community Design Element will require a unified effort by the staff of each City department involved in development decisions, as well as the Planning Commission and City Council. A primary tool in this effort will be the City's updated Development Code, which contains specific requirements designed to ensure compliance with the City's design goals. The Village Specific Plan expands on design criteria appropriate for the pedestrian-oriented Village area. The City's engineering design standards will be modified as needed, and enforcement will be used to enhance property maintenance where appropriate. In addition, the City's design goals should be stated in illustrated handouts, available to project applicants and designers, so that these features can be incorporated into new development plans.

The City will also actively investigate and pursue available funding sources for landscaping, utility undergrounding, city beautification and other programs targeting community improvement, as well as committing City funds to these measures when feasible.

The private sector also has the opportunity to become involved in achieving the desired community design. Business owners can be encouraged to upgrade building facades and landscaping, in cooperation with the City where possible.

With a joint effort, the City, businesses owners and residents of Big Bear Lake can demonstrate their commitment to creation of a well-designed and livable community.

COMMUNITY DESIGN
GOALS, POLICIES AND PROGRAMS

GOAL CD1

Create and maintain a **well-designed built environment** which contributes to the community's economic vitality, enhances the quality of life, and reflects and enhances the beauty of the City's natural mountain setting.

Policy CD 1.1

Consider the **relationship of each development project to its setting**, through the following measures:

a. Each project should integrate with the natural features on and adjacent to the development site, including topography and landforms, geologic and soil conditions, hydrology and drainage, views, significant trees and vegetation, solar and wind exposure, natural open space and similar environmental features.

b. Where appropriate, site design should be oriented to a visual focal point, view corridor or other visual amenity on or near the site.

c. The relationship of building to site to street should be appropriate for the type and intensity of development and compatible with adjacent properties.

d. Each project should complement the character and design of the surrounding area with respect to building size, shape, massing, setbacks, orientation, architecture, colors and landscaping. Buildings which are substantially higher and/or more massive than development in the surrounding district will be strongly discouraged unless it can be found that the added height and/or bulk is necessary to provide a community benefit and will not adversely affect nearby properties.

e. Site design should respect neighboring properties with respect to privacy, noise and view considerations, especially in locating trash, loading, service and storage areas and vents exhaust and heat ducts.

f. Use of recognizable design elements from the surrounding neighborhood or vicinity should be incorporated into designs to create continuity within a district, where appropriate.

g. Site design should integrate with existing and proposed infrastructure systems in the surrounding area, including street patterns, trails and open space, drainage and utility systems.

h. The relationship of a development project to its setting should be considered for varying times and conditions, including daytime and nighttime hours, changing seasons, and anticipated changes in development conditions over the life of the project, to ensure compatibility of the development over time.

i. View analysis of new development projects should consider views to the site and through the site to features beyond, as well as views from within the site; views from various vantage points should be addressed to ensure that project design complements rather than dominates the natural landscape.

Policy CD 1.2

New development in **hillside areas** should be designed in consideration of the natural terrain, through the following measures:

a. Project design should not substantially change the natural slope of the site.
b. Buildings constructed on hillsides should step to follow the natural terrain.
c. The alignment of roads and driveways should follow the contours of the site to minimize cuts and fills, preserve natural drainage patterns, and produce roads that are easier for drivers to negotiate; roads should not be constructed perpendicular to contours.
d. Site design should not change natural drainage patterns.
e. Abrupt grade changes at property lines and at tree drip lines should be avoided.
f. Every effort should be made to minimize the limits of construction and disturbance on hillside sites; stock piling of materials and equipment should occur within construction limits.
g. Surface drainage systems such as swales are preferable to underground systems.
h. Slopes should be no steeper than 2-to-1 unless warranted by qualified soils engineering information.
i. Cuts and fills should have good surface drainage, be revegetated, and terraced or controlled by retaining walls, to protect against erosion and sedimentation.

Policy CD 1.3

The **history of Big Bear Lake** should be reflected in the community's design, through the following means:

a. Use of design elements which reflect the various periods of history and settlement in the Big Bear Valley should be promoted and appropriate historic architectural themes should be incorporated into buildings and public spaces, where appropriate.
b. Unique buildings and features which are determined to be of exceptional value to the community, due to the type of architecture used or historical persons or events associated with them, should be identified and methods of preserving these sites should be evaluated. When feasible and appropriate, buildings should be preserved on site or relocated to a designated historic district. Alternatively, sites within the City which have historic or cultural significance should be identified and commemorated with plaques, monuments or other means as appropriate.
c. New buildings located adjacent to existing historic buildings should incorporate similar historic design features in an appropriate manner which fits the architecture of the new building; such features should reflect but not mimic historical design features.
d. The City should assist any property owners of historic buildings who wish to obtain historical designations for their property, and assist their applications for available funding for preservation and rehabilitation, to the extent feasible.
e. The City's history should be reflected in City-installed banners, street furniture, directional signage or other features as appropriate.

Policy CD 1.4

The built environment should be **functional and user-friendly**, through the following means:

a. Site designs should function well for site users, including both pedestrian and vehicular traffic, as well as bypassing traffic.

b. Site design should create a sense of order by orienting buildings and site features to adjacent streets and other significant site features; in general, buildings should be parallel to the streets they face.

c. Project designs should avoid confusing, complex elements which create disorientation for users. Dead end aisles and circuitous travel paths for vehicles and pedestrians should be avoided, and pedestrian and vehicular access should be designed to provide logical connections with adjacent properties and rights of way without re-entering the public right of way, to the extent feasible.

d. Site entry points and access ways should be emphasized to guide people to their destinations.

e. Pedestrian walkways should be provided to connect uses within and adjacent to each development without crossing through parking spaces, and should be adequately illuminated for nighttime use.

f. Pedestrian travel paths should be designed at a human scale and protected from wind, snow and ice.

g. All site design shall comply with handicapped access requirements and provide a safe and convenient circulation system for people with disabilities, linking building entrances to parking areas and public sidewalks, in accordance with applicable statutes.

h. Architectural and landscape elements should create places that are comfortable and safe for users.

i. Site design should recognize the extremes inherent in the City's mountain environment, including snow, ice, cold and wind, and incorporate design techniques to control or mitigate these factors for site users.

j. The use of sound attenuation features should be included in site design where appropriate to reduce noise impacts to acceptable levels as specified in the Noise Element.

k. Parking lots should be designed for convenience of users by avoiding dead end aisles; providing sufficient back-up distance and turn radii; providing adequate illumination; providing clearly delineated pedestrian pathways to building entrances; separating vehicle drives from truck delivery drives; provision of adequate stacking at drive approaches; avoidance of four-way intersections; provision of adequate stacking for drive-through lanes and avoidance of driveway conflicts at drive-through lane exit points; and use of shared access points at driveway approaches where appropriate.

l. On-site parking should be designed to avoid impacts on adjacent rights of way by vehicles backing out of parking spaces into the right of way.

m. The design, construction techniques and materials used in new development projects should ensure durability and ease of maintenance.

n. Location of transit stops should be considered in the site design; turnouts and pathways serving transit stops should be provided where appropriate.

Policy CD 1.5
Development should encourage and **facilitate interaction of people** through use of functional open space and connectivity, through the following means:

a. The relationship of buildings and open spaces on a site should be designed to ensure that open space is usable, rather than remnants of space left over from building orientation; space should be organized to create a setting which is functional and supportive to the needs of pedestrians and vehicles.
b. The use of barriers within and between developments should be avoided in favor of interconnected access points, where appropriate.
c. Development designs should create places for people to gather; open public spaces should be easily accessible, permit circulation connectivity throughout the site, and foster interaction of users. Pedestrian open spaces and amenity areas should be designed at a human scale and should be furnished with comfortable seating, shade and wind protection, oriented around a focal point, and provided with landscaping or architectural features for visual interest. In this context, human scale means a distance at which faces are distinguishable from one side of the open space to the other. Smaller, interconnected open space areas are more effective in encouraging outdoor use than large expanses of space, where people feel less secure.

GOAL CD 2
Enhance a "sense of place" within Big Bear Lake by emphasizing the City's environmental setting, natural amenities, gateways, landmarks and boundaries.

Policy CD 2.1
Create a **sense of arrival and identity** in Big Bear Lake to reinforce a unified sense of place, through the following measures:

a. Enhance major entry points to the community to create distinctive "gateways" to the city, including entrances to the City along State Route 18 (Big Bear Boulevard) and at Stanfield Cutoff.
b. Enhance major features and intersections which are or will be significant focal points for the City or district in which they are located, including Boulder Bay, Stanfield Marsh, Rotary/Pine Knot Park, Rotary/Knickerbocker Park, and entrances to the Village along Pine Knot and Village Drive.
c. Use cohesive design features to promote a sense of identity at gateways and focal points, including distinctive and identifiable welcome and identification signs for the City; thematic landscape treatment, including hardscape, trees and plant material; lighting; street furniture; banners; public art or other similar features.

Policy CD 2.2
Protect and enhance **significant views**, where appropriate, through the following measures:

a. Prohibit the erection of any new billboard within the City.
b. Ensure that new development in locations which are highly visible from hillside areas, the lake and/or scenic roadways maintains a high quality of design and construction.

c. Promote the use of view fencing instead of solid fencing to protect views, to the extent feasible.

Policy CD 2.3

Enhance and unify elements within the **public realm** through use of unified, cohesive design features, as follows:

a. Enhance the appearance of streets through undergrounding of utility lines, where feasible and appropriate.
b. On new development projects, require landscaping which enhances the perimeter streets through use of street trees, plant materials and hardscape.
c. Beautify the appearance of Big Bear Boulevard through installation of street trees and landscaping emphasizing deciduous trees for fall color; a uniform directional sign program; thematic, decorative banners; and other means as appropriate.
d. Improve and maintain the City's public recreational areas adjacent to the Lake and Big Bear Boulevard, including Boulder Bay, the Civic Center, Rotary-Pine Knot Park, and a new park between the lake and Big Bear Boulevard at Knickerbocker Road, to provide for public access to the lake, preservation of lake views from the highway, highway beautification, and creation of attractive and usable public open spaces at these locations
e. Use distinctive thematic designs and logos for City facilities which may be incorporated into benches and street furniture, banners, landscaping, lighting, directional signs and entryways, where appropriate.

GOAL CD 3

Encourage the use of **architectural treatments** which contribute to Big Bear Lake's community character as a mountain resort, complement and enhance the mountain setting, are durable and easy to maintain, screen unsightly uses from public view, and provide for the safety and comfort of users.

Policy CD 3.1

The built environment should provide a **visually interesting and stimulating setting** by using varied physical forms and details which contribute to Big Bear Lake's sense of place, through the following means:

a. Site and building designs should incorporate a blend of various forms, materials, colors and architectural details which are appropriate for Big Bear Lake's setting, history and community values.
b. Changes in form, variety and contrast of elements should be used to enhance visual interest, provided that use of diverse design techniques should achieve a balance; too much variety in architectural treatment may appear confusing or over-ornamented, while too little variety may result in a sterile or regimented appearance.
c. Design elements should be incorporated into the architecture of the building, rather than added onto the building's facade as trim.
d. Architectural treatment should be included on all publicly visible sides of buildings, rather than on the front or street side only, except as otherwise permitted in industrial areas.

e. Development projects should be visually interesting and attractive for both site users and observers from adjacent streets and properties.
f. Use of corporate architecture prototypes will be discouraged where such designs conflict with established neighborhood character; corporate architecture should be enhanced to reflect mountain design principles, as specified in this element.
g. Accessory structures such as trash enclosures and storage buildings should be designed and constructed using the same design theme and materials as the primary structures on the site.
h. Design elements should be used near the ground to provide visual reference points which can be easily seen from the street or sidewalk, including windows, doors, changes in color or materials, decorative hardware, awnings, porches or other features.
i. Architectural elements should be included on long or tall building facades in order to avoid blank walls which appear monolithic and uninviting.
j. Where high block walls required for sound attenuation or other buffering purposes are visible to the general public, the visual impact of the wall height should be minimized through use of stepped landscape planters, decorative wall design or other similar measures.

Policy CD 3.2
Buildings should be designed to provide visual interest and complement adjacent buildings by their **orientation, shape and massing**, through the following measures:

a. Large building masses should be broken up into smaller units of scale through variation of the wall and roof planes; building facades should be broken up to lessen the mass and define individual components of the building.
b. Developments containing more than one building, such as multiple family projects and shopping centers, shall create visual interest by varying building setbacks and orientations on the site. Long, linear building arrangements creating a continuous wall effect will not be allowed.
c. Where larger multiple-story buildings are proposed adjacent to single-story structures, the larger buildings should be stepped back so that the portion of the building adjacent to the smaller structures is single story, with additional stories further back.
d. Structures with facades greater than sixty (60) feet in length must exhibit a prominent shift in the facade of the structure so that no greater than seventy-five (75) percent of the length of the building facade appears unbroken. Each shift shall be in the form of either a ten foot change in building facade alignment or a ten (10) foot change in roof line height, or a combined change in facade and roof line totaling ten (10) feet. For buildings over one hundred (100) feet in length or width, additional architectural articulation may be required.
e. Building facades should include architectural features to provide visual interest, including but not limited to bay windows, balconies, covered walkways, dormers, framing around doors and windows, and/or detailing.
f. Blank side and end walls should be avoided; design elements should continue around all visible sides of buildings.
g. Building height within the City should be no higher than thirty-five (35) feet, except as otherwise approved through a variance or similar process.

h. Architectural features such as towers, cupolas, ornamental metal structures, roof projections or other similar features should be designed as an integral component of the building design, and should be in scale with the building and the surrounding neighborhood or district. Such features should not be more than twenty-five (25) percent higher than the primary structure or the average height of buildings in the vicinity.

Policy CD 3.3

Building materials should promote a mountain design theme and a genuine character through emphasis on wood and stone elements and other compatible natural materials, and should address the following issues:

a. Natural building materials such as wood, stone and brick that blend with the natural surroundings should be used; buildings should minimize the use of large expanses of reflective glazing, aluminum panels and other materials not normally found in the mountain environment.

b. Synthetic materials that simulate the textures or patterns of other materials (for example, vinyl siding which simulates the pattern of wood grain) should be avoided.

c. Use of wood in the following ways is encouraged: heavy-looking structural timbers, exposed rafter tails, horizontal and diagonal wood siding, decorative logs and rails, and wood trim. Particle board as a finished exterior building material will not be allowed; plywood as a finished exterior building material is discouraged unless it can be shown to integrate with the overall building design in conformance with these policies.

d. Use of indigenous stone for veneer and wainscot treatments is encouraged, particularly rose quartz. Stone should be used at ground level for the building base and for streetscape elements. Artificial stone is discouraged in favor of natural materials.

e. Building materials should evidence a textured quality. Use of slick or shiny materials such as metal, plastic, vinyl or other synthetic materials as a primary building material is discouraged. Metal buildings may be allowed in industrial districts or elsewhere as determined by the Planning Commission, provided that the portions of metal buildings which are visible to the general public are architecturally enhanced in conformance with this element.

f. The use of paint colors to add variety to building facades in place of acceptable building materials should be avoided.

g. Materials should be complementary to those of adjoining buildings.

h. Stucco may be used where it is combined with heavy timber, wood or stone. Stucco should incorporate heavy reveals and expansion joints, and should be protected from weather exposure by deep overhanging eaves. Acrylic based stucco with an acrylic finish (as opposed to painted finish) is recommended.

i. Exposed concrete as a primary building material should have a be ribbed or textured surface; unfinished exposed concrete is not recommended. Standard concrete block should not be exposed, even on fire walls. All concrete should be properly sealed.

j. All building materials must be sufficiently durable and detailed to withstand Big Bear Lake's climate.

k. Other materials may be acceptable in limited areas subject to design review and technical justification.

Policy CD 3.4

Roof design and materials should enhance the skyline and blend with the natural environment, through the following design considerations:

a. Roof surfacing materials and colors should blend with the surroundings, to unify varying architectural features of buildings within a district; strongly contrasting roof colors and materials within a district should be avoided.

b. Roof colors should generally be neutral or muted in order to blend with and enhance the colors of the natural landscape. Brightly colored enameled metal roofs should not be used.

c. Roof materials should be durable in consideration of the effects of climate and snow management; standing seam metal roofs have been effective in this regard. Snow diverters and retainers should be handled as an integral part of the roof shape. Roofs, overhangs and balconies should be designed to avoid shedding snow and ice onto other buildings, pedestrians, cars, power lines and landscaping.

d. Roof pitches should be designed so that falling snow or ice will not threaten human safety or property; roof design should consider ice damming, roof loading and snow accumulation against walls.

e. Roof lines of buildings should be designed to be compatible with surrounding building forms, to establish a visual order for building clusters. Design of roof lines should consider coordination with adjoining eaves, peaks, gables and slopes.

f. Roof forms should be broken up with the use of dormers or other architectural features. The ridge line should not be continuous but should be varied in height or broken with chimneys, towers or other features.

g. Roofs should have a sloped appearance; gable style roof styles with the gable end facing the street are encouraged. Where flat roofs are necessary due to building size, the roof design should incorporate gable features at building entrances or other design features to vary the roof line.

h. Roof flashing materials should be finished to match roof color.

i. The use of wide roof overhangs is strongly encouraged, to protect building foundations from ice and show buildup and to provide shadow lines and visual interest to buildings. Overhangs should be designed to protect balconies and walkways, where appropriate. Buildings with no overhangs should be avoided. Trim and eave lines should have a substantial appearance; thin wood trim sections are discouraged.

j. Satellite dishes, communications antennae and mechanical equipment should be planned as part of the roof design so they are concealed from pedestrian viewpoints, adjacent rights-of-way and any overlooking development.

k. For any buildings over two stories, eave lines or a major cornice or trim line should be located below the third story to bring the building facade down to human scale.

l. Skylights and solar panels should be designed in an unobtrusive manner, flush with the roof surface; reflective materials which generate glare should be avoided.

m. Roof types and materials to be a avoided include the following: dome-shaped roof shapes, including geodesic domes; use of Spanish style barrel roof tiles; and use of untreated metal with a reflective surface. If mansard roof styles are used, the mansard should wrap around all publicly visible portions of the building, rather than being attached only to the front facade.

Policy CD 3.5

Building colors should enhance the community's image as a mountain resort by blending with the natural environment and surrounding development, in accordance with the following:

a. On exterior building walls the predominant color should tend toward natural and muted tones which are found in Big Bear Lake's natural setting. Bright, brilliant, luminescent or day-glow colors are not appropriate as predominant building colors in Big Bear Lake.

b. Selection of colors should consider the colors used on adjacent buildings, to avoid harshly contrasting colors between buildings.

c. Accent colors are encouraged, but must complement base colors and should be limited to no more than two on any building. Harshly contrasting color combinations should be avoided on any building. The use of neighboring colors in the color wheel should be considered when using strong, deep colors as accents.

d. The use of bright, glossy color for focal points and limited accents such as doorways, window frames, signs, graphics, storefronts or displays is encouraged for commercial areas.

Policy CD 3.6

Design of **doors, windows, balconies and porches** should enhance the building facade and provide for maximum safety and comfort of users in consideration of the mountain climate, through the following measures:

a. Location of doors should be convenient for site users; the main entrance point for the public should be clearly delineated through enhanced architectural features, landscaping, lighting and signage, as appropriate.

b. Where possible, doors should open onto exterior areas that receive direct sunlight, to avoid ice build-up at building entrances; snow should not shed onto building entrances.

c. Windows and doors should be of a simple, uncluttered design, using wood or other quality materials in keeping with the building's architecture. Raw aluminum windows and door frames should be avoided; if used, aluminum should be colored or finished. Metal window frames should be finished with an accent color complementary to the building.

d. Windows should have traditional vertical, rectangular proportions. Facades incorporating long horizontal strips of windows should be avoided in favor of windows with frames. Window size and shape should be consistent within and between buildings. Use of decorative window shapes, such as round, arched or other unusual shapes, should be done sparingly as an architectural accent, to avoid creating overly busy facades.

e. Window placement is encouraged on south-facing walls, for solar exposure.

f. Facade openings should be in proportion and relate to one another, to the building and to the functions of the various parts of the building. For example, first-floor retail space will have larger windows than those found on upper-story office or residential space.
g. Reflective or heavily tinted glass should be avoided.
h. Covered balconies and porches are encouraged and should be designed to prevent snow accumulation, interior leaks and icicle buildup, and to prevent snow or ice falling on or from them so as to endanger passers by.

Policy CD 3.7
Site and building design shall provide for the **screening of mechanical equipment**, service areas, utility equipment, storage and refuse collection areas from view of the general public from adjacent properties and rights of way, through the following measures:
a. Roof-mounted mechanical and communication equipment shall be screened by architectural means such as roof projections.
b. Ground mounted equipment, utility meters, backflow devices and similar mechanical equipment shall be screened by use of building placement, decorative walls or fences, landscaping, berms or a combination of these and other appropriate devices; this equipment should not be visible on the primary facades of buildings or in the front yard areas.
c. Mechanical equipment shall be painted to match the surrounding wall or roof color or natural terrain, as applicable.
d. Trash enclosures shall be located behind the front setback and should be screened from view of the street through placement of the primary building, landscaping, berming or other appropriate means. Enclosures should be constructed of masonry block tall enough to screen dumpsters, architecturally enhanced to match the primary building, and fitted with solid metal or wood gates attached to steel poles embedded in concrete.
e. Storage yards and auto service areas shall be screened through use of landscaping, fences or earth berms, or a combination of these techniques.
f. Trash and storage areas shall be well maintained, including prompt repair and replacement of damaged gates.

Policy CD 3.8
Site lighting should provide for public safety, enhance views of development during nighttime hours, limit nuisance to adjacent properties from off-site light and glare, and consider preservation of views of nighttime skies, through the following measures:
a. Illumination levels should be of sufficient intensity to provide security but not over-power the nightscape. Illumination should be low level and low glare.
b. Exterior lighting to highlight landscaped areas or architectural features is encouraged, provided that the light source is inconspicuous and that excessive glare is avoided.
c. Exterior neon is discouraged, with the exception of window signs.
d. Flashing, blinking or colored lighting should be avoided, except for holiday lighting.

e. Incandescent or other warm colored lighting is preferred; light sources which produce light pollution by creating an ambient glow, or which alter the colors of objects at night, are discouraged.
f. Exterior light fixtures should be shielded and directed downward so that the light source is not visible from beyond the property line on which the structure is located.
g. Exterior lighting fixtures should not project above the horizontal plane of the building.
h. Adequate illumination should be provided in parking lots to ensure user safety, and extreme variation in illumination levels throughout the lot should be avoided. The height of light fixtures should be in proportion to the building mass and should consider adjacent uses; within pedestrian districts and adjacent to residential designations or uses, light fixture height should be less than in vehicle-dominated commercial lots. Parking lots should not be illuminated by lighting fixtures affixed to structures.
i. Adequate illumination should be provided for walkways and building entrances; changes in grade such as steps and ramps should be well-lit.
j. The design of lighting fixtures should be decorative and compatible with the building architecture; generally, simple and functional designs are preferred over highly ornate fixtures which are more difficult to maintain.
k. Light poles should be designed to withstand plowing and piling of snow.
l. Light from gas station canopies, service areas, security lighting, signs and other site features should not be excessive so as to create off-site glare.
m. The use of small decorative lights strung on trees or buildings is encouraged in pedestrian-oriented commercial areas.

GOAL CD 4

Development in Big Bear Lake should **consider weather and climate** in design of buildings and site plans, and incorporate design features for effective snow management and solar heating, as appropriate.

Policy CD 4.1

Site and building design should maximize opportunities for **solar exposure**, through the following measures:

a. Habitable areas of structure should be oriented to achieve maximum exposure to sunlight.
b. Use of south-facing windows is encouraged.
c. Location of decks, balconies and porches should be oriented for solar exposure, to provide sunny, usable outdoor space.
d. Site designs should preserve sunlight on outdoor public spaces, especially in the afternoon hours; outdoor spaces which are permanently shaded during winter months will be generally unusable at that time.
e. Building placement and orientation should maintain solar exposure to adjoining buildings and sites.
f. Solar radiation and glare should be considered in choosing building colors, particularly in areas facing public open spaces; bright whites should be avoided in these areas.

g. Location of shade trees should consider solar exposure; trees should not permanently shade outdoor public seating areas at maturity, except where appropriate in park and recreation facilities.

Policy CD 4.2

Snow must be properly managed to avoid damage to buildings, risks to pedestrians and vehicles, and to reduce maintenance and snow removal costs, through the following measures:

a. Developers should consider snow management at the earliest phase of development and incorporate design features to handle snow plowing and storage.

b. Snow and drainage from roofs should not be dumped onto adjoining streets or properties.

c. Snow, meltwater and/or icicles should not be allowed to drop onto pedestrian areas, building entrances, walkways, porches or balconies.

d. Snow diverters or snow retainers, roof pitch and roof materials should be designed to either shed or retain snow in a safe manner. Snow splitters may be required on roof projections. Eaves should be designed to avoid damage from snow shed.

e. Service areas, garage entries, trash enclosures and loading areas should be located so that they are not blocked by snow or rendered inaccessible by ice accumulation.

f. Building projections should be durable in consideration of snow loads.

g. Stairs and ramps should be roofed or heated to avoid ice build-up.

h. Provisions for **snow storage and snow removal** should be incorporated into the site design, as follows:

(1) Snow storage areas must be designated on site; plowing snow onto public streets will not be allowed.

(2) Snow storage should consider impacts on vegetation; snow storage areas should be planted with suitable plant materials which are low-growing and can withstand the weight of the snow. Landscape planters should have low edges to facilitate plowing. Snow storage areas should be well-drained, but should not direct meltwater onto pedestrian pathways, building entrance points or outdoor public open spaces.

(3) Location of snow storage areas in sunny areas will hasten melting.

(4) A sufficient number of smaller snow storage areas is preferable to one larger area.

(5) Snow storage areas should be readily accessible to snow plows.

(6) Outdoor open spaces and sidewalks should be designed for ease of snow plowing through locations of street furniture, planters, signs and lighting; movable features may be preferable.

(7) Sidewalks and pedestrian walkways may need to be widened to accommodate for snow storage.

j. **Parking lots should be designed for effective snow management**, as follows:

(1) Snow storage and drainage should be incorporated into parking lot design, and can be combined with planter areas where appropriate. Larger areas of landscaping at ends of parking aisles and around the perimeter of parking lot are preferable to landscape fingers within lot, for plowing purposes.

(2) Drainage should not be directed to traffic aisles or pedestrian walkways, where it will cause ice build up. Surface drainage is preferred over catch basins; if catch basins are used, they should be kept clear from snow build up. Continuous curbing of parking lots should be avoided to allow better drainage.

(3) Snow storage areas should be located at the ends of parking lot aisles, to facilitate ease of plowing.

GOAL CD 5

Use **landscaping** to reinforce community identity, create a pleasant environment, provide protection from the elements, enhance development sites, and complement the natural vegetation of Big Bear Lake, while employing water conservation techniques.

Policy CD 5.1

Landscaping should enhance buildings and parking areas, provide screening where appropriate, and complement the natural environment, through the following measures:

a. Use of plant materials should be compatible with that of neighboring properties in terms of type, size and density. Where appropriate, street trees may be of a uniform type to promote a cohesive streetscape.

b. Landscaping should be used throughout development sites to emphasize project and building entries, contrast with or reinforce building lines, soften expanses of walls and pavement, define outdoor spaces and delineate pathways, frame attractive views, screen unattractive features and provide shade in parking areas.

c. Plants should be selected for their year-round interest as well as their form, texture and shape; deciduous trees should be incorporated into plant palettes for fall color. A mix of evergreen and deciduous trees should be used along the street for year-round interest. Evergreen trees should be used to block winter winds and screen unsightly features. Deciduous trees should be used on southern and western exposures for summer shade and winter sun.

d. Planting plans should incorporate existing trees and other significant native vegetation within landscaped areas where appropriate; landscape and grading plans for new development should limit removal of viable mature trees, and provide for replacement of a sufficient number of trees to safeguard the ecological and aesthetic environment. Mature trees left on site should be used as focal points in the design. Where these trees are preserved, they should be protected in place with no variation in the finish grade and no impervious materials under the drip line.

e. Natural site features such as drainage courses, large rocks or topographic features should be incorporated into the landscape plan, where feasible and appropriate.

f. For developments that adjoin natural open space areas having significant stands of trees or other native vegetation, landscaping should be compatible with the adjacent native vegetation.

g. All disturbed areas should be revegetated; landscaping should be provided for erosion control where appropriate.

h. Planting plans should include plant materials of mixed maturity throughout the site; new landscape material should include a mix of 1, 5, and 15 gallon plants and box trees.
i. Plant palettes should consider safety and comfort of pedestrians; plants that drop fruit, pods, bark, nuts or branches should be avoided, and plants with thorns or sharp edges should be avoided in pedestrian areas.
j. Landscape design should be coordinated with placement of site utilities, including overhead lines, transformers, meter boxes, back flow devices and similar equipment, in order to prevent obstruction of utilities while providing adequate screening.
k. Landscaping should be maintained so as not to obstruct walkways; at least seven feet of vertical clearance should be maintained underneath a tree canopy.
l. Where development is proposed at street intersections, a landscape focal point on the corner is recommended.
m. The location of plant materials should not obscure signs as the plants mature.
n. Significant views should be considered in the preparation of a landscape plan, particularly where plant material will be considerably larger at maturity.
o. Landscaping should be used to soften the effect of long blank walls; tall retaining walls should be stepped to form benches which can be softened with landscaping.
p. Trees and plants should be protected from snow clearing operations; plant material located in snow dump areas must be sufficiently durable to survive.
q. Spring and summer floral displays are strongly encouraged in highly visible areas.

Policy CD 5.3
Landscaping should incorporate **water conservation techniques**, through the following measures:
a. Use of hardscape and/or natural areas along with plant materials should be included in landscaping designs as a water conservation measure.
b. Plant materials should be suitable for the mountain environment, drought resistant, and should be grouped on the site according to their watering needs.
c. Irrigation systems should be designed to minimize maintenance and water consumption; drip systems are preferred, where feasible and appropriate. Automatic systems should be installed for all commercial, industrial and multi-family development.

GOAL CD 6
Ensure a **functional and safe living environment** for all residents of Big Bear Lake.

Policy CD 6.1
Development in **single family residential** areas should ensure that each legally-created lot is buildable, that lots and buildings are designed to ensure ease of access, privacy, fire safety and adequate parking, and that housing meets a minimum standard of construction, through conformance to applicable policies in this element in addition to the following measures:
a. Adequate building setbacks should be required on residential lots to ensure privacy for each residence, while allowing for a reasonable building envelope on legal existing substandard lots.

b. The creation of flag lots may be allowed only when it can be determined that each resulting lot will meet the minimum lot requirement of the zone exclusive of the "flag" portion of the lot; that creation of a flag lot is necessary to minimize site grading, preserve a natural feature or amenity or provide some other benefit; that the resulting lot configuration is not detrimental to the surrounding neighborhood; and that adequate emergency access may be provided to all resulting lots.

c. Grading on single family lots should not adversely impact adjacent residential lots through creation of visually obtrusive retaining walls, diversion of drainage onto adjacent lots, obstruction of solar access or other impact.

d. For equestrian lots, adequate setbacks should be maintained for animal enclosures to avoid adversely impacting adjacent properties.

e. The height and bulk of single family residences should be in proportion to the size of the lot; variances for setbacks and height should not be granted simply to allow construction of houses exceeding the floor area which can suitably be supported by the lot.

f. Single family homes on sloping lots should conform to the natural grade through multiple levels or other means as appropriate; residential development on slopes over ten (10) percent will be subject to design review.

g. All new single family residences, including manufactured homes and mobile homes, shall be constructed on a permanent foundation and shall use roofing and siding materials similar to and compatible with other residences in the neighborhood; use of eaves is strongly recommended, and at least one covered parking space should be provided.

h. Second units on single family lots, such as dependent housing units, should be constructed of the same materials and be similar in architecture and design to the primary unit.

i. Colors used for homes within single family residential designations should conform to the color guidelines contained in this element.

Policy CD 6.2

Multiple family housing should provide a safe and pleasant living environment for residents and should be integrated with surrounding neighborhoods to enhance a sense of community, through conformance to applicable policies in this element in addition to the following measures:

a. Parking areas should be designed so that vehicle headlights are screened from adjacent on-site or off-site residences, through use of landscaping, low profile walls, grade differential or a combination of these and other factors, as appropriate.

b Common open space areas should be placed so as to be visible from building entrances, windows of adjacent residences and public streets, to increase visibility for security purposes.

c. Long, unbroken parking drives or large, undivided parking lots are discouraged in favor of dispersed parking courts placed near the units they serve. Parking spaces should be visible from and conveniently located near the units which use them.

d. An adequate number of trash enclosures should be conveniently located throughout the development and should be constructed with a walk-in entrance as well as solid metal or wood gates for ease of use by all residents.

e. A minimum of two means of ingress and egress should be provided, except for smaller projects where emergency access is determined to be adequate.
f. For gated communities, adequate stacking room and parking stalls should be provided outside of the gates, to eliminate queuing of vehicles onto public streets. Internal stacking should not interfere with circulation on the site. Public safety officers should be granted access to gated communities.
g. Dwelling units should be oriented to focus on good views.
h. Drive aisles should be treated like a streetscape, with parkway trees and landscaping provided.
i. Private open spaces provided for individual units should be contiguous to the units they serve and screened from public views.
j. Common use areas should be located for residents' safety and convenience; for example, laundry areas should be located near children's play areas, to provide for visibility by caretakers.

Policy CD 6.3

Ensure that **mobile home and manufactured housing communities** meet the City's residential design goals to ensure a safe, pleasant and functional living environment for residents, by requiring adherence to applicable design policies in addition to the following criteria:

a. Greenbelts with walkways should be located between rows of mobile homes to provide pedestrian access and open space.
b. Recreational amenities and functional open spaces should be provided which are conveniently located and accessible by pedestrian pathways, with facilities for all age groups within the park.
c. Privacy and individuality for each unit should be created by use of varied unit footprints, including varied building setbacks.
d. Functional and defined private yard space should be provided for each dwelling unit.
e. Curvilinear streets, short street segments, cul-de sacs or a combination of these design features should be used instead of long, narrow alley-like drives.
f. Landscaping and street trees should be provided along private interior streets and drives.
g. Adequate guest parking should be provided which is conveniently distributed throughout the project.
h. Recreational vehicle storage areas should be screened and adequate buffering provided between those areas and adjacent residential uses.
i. At least two means of access should be provided.
j. An adequate number of trash enclosures should be conveniently located throughout the development and should be constructed with a walk-in entrance as well as solid metal gates for ease of use by all residents.
k. For gated communities, adequate stacking room and parking stalls should be provided outside of the gates, to eliminate queuing of vehicles onto public streets. Internal stacking should not interfere with circulation on the site. Public safety officers should be granted access to gated communities.

l. Adequate setbacks and transitional screening should be provided between the mobile home park and adjacent residential uses.
m. Adequate provision should be made for ongoing maintenance of mobile home parks.

Policy CD 6.4
Ensure that design characteristics of **senior living facilities** consider and accommodate the special needs of residents, through conformance with applicable design guidelines in this element as well as the following criteria:

a. Senior projects should be located within reasonable walking distance of support services such as shopping and medical offices, or should be served by public transit or private shuttle service.
b. Units should be provided with appliances designed for ease of maintenance and metering, to meet the specific needs of seniors.
c. Adequate lighting, handrails and/or seating should be provided along any hallways, walkways, balconies or other common areas, where appropriate.
d. Low door thresholds and door closers are recommended for unit entrances.
e. Parking in senior housing projects may be provided at a reduced ratio, but spaces should be covered and located within a reasonable distance of the units they serve.
f. Open space areas should be provided where solar exposure is present all year.

GOAL CD 7
Commercial, industrial and public use development in Big Bear Lake should enhance the community's economic vitality by providing a high quality environment for shopping and working, through conformance with the applicable policies of this element in addition to the following policies.

Policy CD 7.1
Site planning and design of **retail and office commercial** development should be integrated with adjacent properties, provide for optimum use of the site, and enhance the visual appearance of business areas, through the following means:

a. Building and parking layout should be varied to avoid a "strip commercial" appearance, in which buildings are plotted in a straight row with parking along the entire street frontage; building placement should be varied to avoid parking areas which dominate the streetscape.
b. Where a commercial site adjoins residential development, the site design should provide a transition of use and scale; decorative building design, increased setbacks, one-story massing at the interface area, difference in grade and dense landscaping are preferred techniques. If walls are required for screening purposes, they should be of decorative construction.
c. Development patterns which route traffic to or from commercial destinations through residential neighborhoods will not be allowed.
d. Consideration should be given to sharing access between adjoining commercial properties in order to limit curb cuts and provide greater efficiency of on-site circulation, where appropriate.

e. Adequate vehicle stacking room should be provided at project entrances and exits and for all drive-through facilities.

f. Storefront designs for shopping centers should complement the architectural style of the center and provide visual interest and variation. Suggested design elements include providing offsets or bays; using a strong base material for wainscoting; variation of storefront treatment; multi-paned windows; detail at window and door openings; overhangs and awnings; shutters; and other similar features that engage the eye.

g. Architectural focal points are encouraged to create entry statements and provide a sense of place; towers, fountains, plazas, public art, entry treatments, trellises or other similar means are encouraged for this purpose, provided that such features are designed as an integral component of the project architecture and are of a scale and height appropriate for the building and the surrounding district. .

h. Consideration should be given to all the types of tenants and users desired and sufficient parking should be provided for these uses, rather than trying to maximize building floor area at the expense of parking and thereby limiting future tenants and uses.

i. If not required for a specific screening or security purpose, walls should not be used. Where required for screening or security, walls should be kept as low as possible.

j. When security fencing is needed in areas visible from public rights of way or adjacent properties, it should be of decorative construction such as a combination of solid walls with pilasters and decorative view fencing, or decorative view fencing such as wrought iron; the use of chain link fencing visible to the public in commercial areas is discouraged.

k. Truck access and loading should occur on-site, without impacting adjacent rights of way. Truck access should be separated from vehicle access aisles used by employees and/or customers.

Policy CD 7.2

In **mixed use projects** where retail and/or office uses are co-located with residential uses, ensure that such developments are attractive and functional while minimizing conflicts between uses of different intensity, through conformance with applicable design guidelines in this element in addition to the following:

a. Design of mixed use projects should provide for attractive transitions between uses, rather than abrupt barriers or separations.

b. Residential and commercial uses should each have an identifiable design character, provided that certain design elements should be carried throughout the project to create a sense of unity.

c. Commercial uses should be located closer to the street, in order to provide better visibility and access; residential uses should be located in the interior of the lot or above commercial uses, separated from busy streets.

d. Loading, service areas and trash enclosures for commercial uses should be fully screened and separated from residential uses. Separate vehicular access should be provided from the street to the commercial and residential components of the project.

e. The nature of commercial uses permitted within a mixed use development should complement the residential portion of the project, so as to create a neighborhood environment. Commercial uses which are of an intensity not appropriate adjacent to residential uses should be avoided in mixed use projects.

f. Parking shall be provided for residential units in conformance with development code standards for residential units in multi-family zone districts.

Policy CD 7.2

Ensure that **industrial uses** are properly screened and that transitions between industrial areas and adjacent, less-intensive uses are provided, while ensuring that the interior portions of industrial sites function well for the user in terms of ease of operations and maintenance, through conformance with the applicable design guidelines in this element in addition to the following measures:

a. Portions of industrial sites which are visible to the general public from public rights of way and adjacent, less intensively used or designated properties should conform to the applicable guidelines in this element, including but not limited to architecture, site design, lighting, landscaping and screening.

b. Adequate transitions should be provided between industrial uses and less intensive uses, including but not limited to the provision of increased setbacks, increased landscaping, decorative walls, berming or grade differential, or other means as deemed appropriate.

c. Loading docks, overhead roll-up doors, outdoor storage, trash collection areas and other service areas on industrial sites should be oriented to the interior of the site, away from street frontages and public views, or should be adequately screened by wing walls, building placement, screen walls or other means.

d. Storage of materials on industrial sites should not extend in height above the height of screen walls or fences.

e. In lieu of on-site landscaping and architectural upgrades within the interior portions of industrial sites, landscaping and design features should be provided around the site perimeter where they are visible to the general public.

f. Industrial traffic should not be routed through residential neighborhoods.

g. Industrial uses should be operated so as to mitigate operational impacts on less intensive uses, including noise, light, glare, blowing dust, odors or other potential nuisances.

h. Truck access and loading should occur on-site, without impact to adjacent rights of way. Truck access should be separated from vehicle access used by employees and/or customers.

Policy CD 7.3

Require that **public uses**, including any public works projects and capital improvement projects undertaken by the City of Big Bear Lake, conform to the applicable design guidelines contained in this element.

Policy CD 7.4

The review process for commercial **signs** in Big Bear Lake should ensure that signs enhance, rather than detract from, the natural environment and distinctive mountain architecture, while reducing inconvenience to local businesses, through the following measures:

a. Sign location and design should be integrated into the building architecture and site layout, reinforcing the character of the building design; sign size and dimensions should be proportional to the scale of the building and the mounting surface.

b. The effect of sign placement on adjacent parcels and rights of way should be considered, so as to avoid obstructing views of other signs or obstructing drivers' views at intersections and driveways.

c. Sign design, construction and installation should allow for a sign to be replaced, removed or modified without structural damage to the building.

d. Where multiple tenants share a development, a consistent sign program is recommended to provide a coordinated project theme.

e. Signs should be located and designed for maximum readability during both daytime and nighttime hours; simple messages, layout and color schemes make signs easier to read.

f. Sign lighting should not be excessive so as to create off-site glare; if signs are illuminated by exterior fixtures, the light source should be concealed.

g. Sign design should incorporate design features to reinforce mountain themes, such as use of wood, brick and/or stone. Materials should be weather-resistant.

h. Free standing signs should have landscaping and/or decorative hardscape at the base of the sign.

i. Fluorescent, reflective and luminescent colors should be avoided.

j. For free-standing signs, sign supports should be architecturally enhanced by use of wood, stone or other natural materials; the appearance of metal poles should be avoided.

k. Signs should have a clearly defined edge, provide a shadow line, and have a substantial appearance; signs painted on building facades should be avoided.

l. Miscellaneous signs attached to primary signs should be avoided.

m. Sign placement should not impact views of the skyline; signs extending above the roof line shall be avoided.

n. Signs should be of good quality materials and workmanship.

o. Sign review procedures and criteria should be clearly stated, simple and convenient; review should occur in no less than 3 working days, and all signs meeting the minimum criteria should be approved immediately. Sign review should not be required for change of copy only, and no regulation of sign content should occur.

p. Decorative murals may be used if approved by the Planning Commission, provided that they conform to the applicable policies of the General Plan; if wording is included in a mural, it shall be considered to be a sign and shall meet the applicable requirements for area, placement and permitting within the sign ordinance.

PROGRAMS

The Community Design Element will be implemented through the following programs.

Program CD 1

For all development projects which require design review, the reviewing authority will ensure compliance of the project with the design guidelines contained in this element through a finding that the project conforms to the General Plan.

Responsible Agency: Planning Division, Development Review Committee, Planning Commission, City Council

Schedule: Ongoing.

Program CD 2

The City will update its Development Code and all other applicable ordinances to reflect and implement the guidelines contained in this element.

Responsible Agency: Planning Division with the assistance of other departments, Planning Commission, City Council.

Schedule: 2001

Program CD 3

The City will update its Sign Ordinance to reflect and implement the guidelines contained in this element.

Responsible Agency: Planning Division Planning Commission, City Council.

Schedule: 2000

Program CD 4

The City will amend the Development Code to strengthen property maintenance provisions to address unmaintained properties, graffiti, litter, abandoned signs and vehicles and other forms of blight which detract from Big Bear Lake's appearance and lifestyle.

Responsible Agency: Planning Division, Planning Commission, City Council, Code Enforcement Division.

Schedule: 2001and ongoing.

Program CD 5

The City will commit funding to the extent feasible, and will seek available funding from other sources, to implement city beautification programs, including but not limited to undergrounding of utility lines, planting of street trees, installation of gateway monumentation, improvement of lakefront parks, installation of decorative directional signs and street furniture, and other measures as appropriate.

Responsible Agency: City Council, Improvement Agency, City Manager and applicable departments

Schedule: Ongoing.

Program CD 6
The City will evaluate structures which may have historical or cultural significance and assess the feasibility of preserving, rehabilitating and/or relocating these structures.
Responsible Agency: Planning Division and Building & Safety Division.
Schedule: Ongoing.

Program CD 7
City staff will provided assistance to owners of historic properties in obtaining a historic designation from appropriate state or federal agencies, and will assist qualified project proponents to seek available funding from outside sources for preservation and rehabilitation of these structures, to the extent feasible and appropriate.
Responsible Agency: Planning Division
Schedule: Ongoing.

Program CD 8
Working with the local historical society and other appropriate entities, the City will identify sites of historic significance which may be commemorated by monuments, signs or other appropriate means, and will assist in this effort.
Responsible Agency: Planning Division
Schedule: Ongoing.

Program CD 9
The City will create and distribute clear, understandable handouts, illustrated with examples of desired design characteristics, to explain its community design goals and policies to applicants and members of the public.
Responsible Agency: Planning Division
Schedule: 2001and ongoing.

2000-2005 HOUSING ELEMENT

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CITY OF BIG BEAR LAKE 2000 – 2005 HOUSING ELEMENT

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I. INTRODUCTION

Purpose of the Housing Element

This update of the City of Big Bear Lake's Housing Element of the General Plan has been prepared pursuant to California Government Code Article 10.6, Sections 65580 through 65589.9. Each city and county in the state is required, as part of its general plan, to prepare a housing element. In creating the housing element law, the Legislature's aim was to ensure that local governments would cooperate with one another in order to address regional housing needs and that counties and cities would marshal available resources and develop appropriate local programs in fulfillment of the state's housing goal.

The housing element must identify and analyze the community's housing needs and provide a statement of goals, policies, quantified objectives, financial resources and scheduled programs for the preservation, improvement and development of housing. The element must identify adequate sites to meet the housing needs of all economic sectors of the community and permit a variety of housing types including rental housing, factory-built housing and mobile homes.

Public Participation

The Housing Element was prepared by the consulting firm of Karin Pally Associates under the direction of the Planning Division of the City of Big Bear Lake. Housing element law requires that the local government make a diligent effort to involve all economic segments of the community in the development of the housing element. This participation must be described in the element. In preparing the element, a number of local social service agencies were consulted by telephone about the services they provide and the needs of their clients for housing. A list of the agencies consulted is provided in the Appendix under sources. The Planning Commission of Big Bear Lake held a public workshop on the draft Housing Element on August 30, 2000. Draft copies of the element were circulated for public review and comment for several weeks before the date of the workshop. A standard public notice about the workshop was published in the newspaper and posted at City Hall on August 16, 2000. Copies of the draft element were made available at City Hall and at the public library. In addition, copies of the draft element were sent to 20 local nonprofit agencies that assist persons with specials needs such as DOVES, Operation Breakthrough, Eternal Light Ministry and others. Mr. Craig Murray, a local property owner, also submitted written comments. After the Planning Commission workshop, the draft element was revised in accordance with comments from the City Attorney, and testimony provided at the workshop. Once the draft document has been reviewed by the California Department of Housing and Community Development and any required revisions have been made, the draft element will be submitted first to the City's Planning Commission and then to the City Council for review and approval through the public hearing process.

On November 13, 2001, the City Council and Planning Commission held a joint public workshop on the draft Housing Element. A standard public notice about the workshop was published in The Grizzly newspaper and posted at City Hall. In addition, letters were mailed to various service organizations and those persons requesting notification of the public hearing process. Copies of the draft Element were made available at City Hall.

On January 16, 2002, the Planning Commission conducted a duly noticed public hearing and voted 5-0 recommending that the City Council adopt the 2000-2005 Housing Element. On February 11, 2002, the City Council held a public hearing on the draft Housing Element and voted 5-0 to adopt City Council Resolution No. 2002-07, adopting the Big Bear Lake General Plan Housing Element.

Consistency with Other General Plan Elements

As required by state law, the Housing Element has been prepared to be consistent with other elements of the General Plan. The Housing Element assists in the implementation of the overall goals and policies of the General Plan and leaves the General Plan internally consistent. This Element is compatible with the Land Use Element and Map and is the basis for the identification of adequate residential sites in the Housing Element. The Circulation Element provides for development of adequate transportation systems for future housing development as shown on the Land Use Map. The Public Services Element ensures that public facilities and infrastructure will be available to support future housing sites. The Noise Element contains policies to protect areas designated for housing use from inappropriate noise levels. The Open Space, Parks and Recreation Element, in combination with the Land Use Map, designate open and recreation space for the community's growing population. The Environmental Hazards and Environmental Resources Elements address environmental issues in the city to protect all residents from natural hazards and ensure preservation of natural resources for the common good. The Community Design Element established policies to shape the overall form and appearance of the City and to improve the function and aesthetic quality of the built environment for City residents and businesses. The Element is also consistent with the Five-Year Implementation Plan of the Big Bear Lake Improvement Agency, providing programs to implement the Improvement Agency's housing goals.

In the event of inconsistencies between the Housing Element and other elements contained within the General Plan, a general plan amendment will be processed to achieve internal consistency within the General Plan document. Additionally, any general plan amendment that is being considered will be required to be consistent with the General Plan, including the Housing Element.

Organization of the Element

Section II of the element provides an analysis of performance on the goals and programs of the previous adopted Housing Element. Section III provides data on the City's population and housing stock, while Section IV analyzes the City's housing needs and resources. Section V addresses constraints on housing development, Section VI, the preservation of assisted developments with expiring affordability restrictions and Section VII delineates the City's goals, policies and programs for the next five years. Section VIII is a chart of the City's quantified objectives for 2000-2005 and Section IX lists the financial resources for meeting those objectives.

II. EVALUATION OF PREVIOUS ELEMENT 1990 THROUGH 2000

While many of the proposed programs in the previous element were not implemented, the City, which has a population of only 6,192 persons and very limited CDBG and redevelopment funds, is nevertheless able to report several important housing achievements:

1. Between 1990 and 2000, 682 new units, an increase of 7.8%, were constructed in the City despite a severe recession in the early and mid-1990s that nearly froze housing development all over the state. These units included 102 multi-family units and 580 single-family units. In 2001, an additional 140 units were constructed.
2. 73 units for very low to moderate-income seniors were constructed.
3. The City enacted a density bonus ordinance providing additional incentives to developers using the density bonus including the possibility of a 100% density bonus for projects with 100% affordable housing. The senior housing project received a density bonus of 85%.
4. DOVES, the domestic violence service agency opened an 18-bed shelter with a six-month program that serves about 40 adults and 35 children a year.

Past Performance

Numerical objectives for the last element were tied to 11 programs. Table 1 reports on those programs. A number of housing programs were not implemented due to a shortage of housing staff and refocus of the housing program. A number of programs depended upon actions of the County of San Bernardino's Department of Economic and Community Development. Big Bear Lake is too small to be a Community Development Block Grant (CDBG) entitlement city; its residents must apply to the County's Department of Economic and Community Development for housing programs funded by CDBG and by HOME. This department does not maintain an office in Big Bear Lake; residents must go to the City of San Bernardino in order to apply for County housing programs. The County provides information about its programs on its website but does not conduct any other outreach to market its programs. Nevertheless, 27 households obtained grants from the County's senior repair program over the decade between 1990 and 2000 and seven households obtained single-family housing rehabilitation loans.

It appears that a number of the programs that were proposed in the previous element were not based on a rigorous evaluation of the City's financial resources and staff capacity. Aside from an annual $37,000 from CDBG that is spent on community services, the City's only local housing funds come from the redevelopment agency's housing set aside. The annual income from this set-aside is about $238,500. A housing staff position would consume much of the set-aside, leaving few dollars for actual housing expenditures. In the late 1990s, after evaluating community needs, local housing resources and City staff capacity, the City decided to concentrate its resources on the construction of 73 units for very low to moderate income seniors. That project was completed and fully occupied in 2000. As permitted by the California Department of Housing and Community Development, the 73 units in that project are recorded in both the past performance section and the Housing Element's quantified objectives for 2000-2005. Since the City's total fair share allocation for 2000-2005 is 102 units, the City has already completed its fair share of new housing units affordable to low and moderate-income persons.

Table 1

Report on Numerical Objectives from Previous Housing Element

PROGRAM #	GOAL	STATUS
P3.3 listed on page 9	25 very low 25 low 25 moderate 25 high	The density bonus ordinance 92-223 was enacted. It provides various incentives including up to 100% bonus for a 100% affordable project. 73 very low to moderate-income senior units were constructed in 1998-2000. This number includes 42 density bonus units.
P3.5 listed on page 10	15 very low 45 low	Not implemented
P3.7 listed on 10	25 very low 25 low	Not implemented
P3.8 listed on page 10		Not implemented
P4.6 listed on page 12	25 very low 50 low 25 moderate	Redevelopment plan revised and 20% of redevelopment funds set aside for low and moderate-income housing. Relocation program not implemented.

PROGRAM #	GOAL	STATUS
P4.8 listed on page 12	25 Very low 25 low 25 moderate 25 high	Not implemented. Applications for Section 8 are submitted directly to the County Housing Authority in the City of San Bernardino. 13 households in Big Bear Lake have Section 8 certificates or vouchers. The City receives an annual allocation of about $37,000 in CDBG funds. These funds are administered by the San Bernardino County Department of Economic and Community Development, but applications are submitted to the City and recommended for approval by the City Council. 15% of the funds are spent on social service programs; the remaining funds are used for social service facilities and infrastructure. The San Bernardino County Economic and Community Development Department has a repair program that funded repairs in 27 Big Bear Lake homes between 1990 and 1999. Applications are made directly to the Housing Development Division of the San Bernardino County Economic and Community Development Divisions. The County's Housing Development Division also has a Rehabilitation Loan Program. Between 1990 and 1999, 7 rehab loans were made to qualified residents of Big Bear Lake.
P4.9 listed on page 13	25 very low 25 low 25 moderate 25 high	Not implemented.
P4.10 listed on page 13	25 very low 25 low 25 moderate 25 high	Not implemented.
P2.2 listed on page 7	15 low 15 moderate	Not implemented.
P2.4 listed on page 8	10 very low 10 low	Not implemented.

PROGRAM #	GOAL	STATUS
P2.5 listed on page 8	5 low 10 very low	Not implemented.

Source: Current Big Bear Lake Housing Element

A progress report on the housing element programs is provided below. A number of programs proposed in the City's previous housing element were not implemented. Implementation was constrained by a lack of housing staff and financial resources. A reassessment of both resulted in a change in the City's housing plans that focused the expenditure of affordable housing resources on the construction of 73 units affordable to very low to moderate-income senior households. These units were constructed between 1998 and 2000.

The City has already met its fair share obligation, producing 428276 new units between 1998 and 2001 including 230 single-family units and 127 multi-family units, including 54 timeshare units. Seventy-three of the multi-family units were created to provide permanent affordable housing for very low to moderate-income seniors. An annual report provided for the project for the year 2000 indicated that 80% of the residents were of very low income, 17% were of low income and approximately 3% were of moderate income. As of October 2001, the project has been fully occupied with 63% very low, 26% low and 8% moderate-income households (average age 71 years).

The programs proposed by the City for 2000-2005 are based on a realistic assessment of its financial and staff capacity. Over the next five years, the City will try to improve access to the County of San Bernardino's affordable housing units by posting information about these programs on its website, work with a local bank to develop a loan program for owner-occupants of single family homes and for multi-family property owners and assess the feasibility of developing either transitional or permanent housing for large families with low incomes. A program-by-program assessment of the City's previous housing element is provided below.

GOAL 1 HOUSING DESIGN

P1.2 Update and enlarge the Architectural Review Handbook through active citizen participation. Include sections on site orientation and fire-safety awareness. Educate the community on new construction methods, materials, and housing types by sponsoring seminars and exhibits and developing and promoting a resource library for public use.

Status: Not implemented. This program is not included in the updated programs section.

P1.3 Preserve and protect historically, culturally, and architecturally significant homes and /or neighborhoods to promote historic interest in the City by adopting the State Historical Building Code and developing an inventory of historic buildings with the aid of the local historical society.

Status: Not implemented. However, the Planning Department does review demolition of old structures for environmental significance. Potentially significant projects are referred to the San Bernardino County Museum for comment and mitigation measures that are then implemented.

P1.4 Recognize efforts on the part of private developers and citizens to improve the aesthetic quality of the city's housing stock by developing an annual ceremony and exhibit to honor design excellence in all areas of design and construction while providing the public with examples of "good mountain design."

Status: Not implemented.

P1.5 Explore regional state and federal funding sources for residential energy and water conservation and other related programs.

Status: Not implemented.

P1.6 Implement Slope Density Ordinance 90-191 to protect development in fragile, hillside areas based on maximum allowable lot coverage instead of density. Revise the Land use Element of the General Plan to be consistent with the new ordinance.

Status: Ongoing. Land Use Element revised.

P1.7 Adopt a Tree Preservation Ordinance to protect open space in residential zones.

Status: Adopted 10/21/92 by City Council Resolution 92-224.

GOAL 2 DECENT HOUSING

P2.1 Enhance and upgrade a database of housing conditions on a continuing basis.

Status: An inventory of housing conditions was completed in 2000 using windshield

survey methods. All units in the City were surveyed. This program is considered complete and is not included in the updated programs section.

P2.2 Investigate the initiation of a housing repair program using funds from such sources as the Big Bear Lake Improvement Agency, the State Housing Finance Office, the Community Development Block Grant Program or other available funding programs. Develop information packets for property owners.

Status: Not implemented due to other funding priorities for these programs. San Bernardino County operates a Senior Housing Repair Program for homeowners over age 50 who earn 80% or less of area median income. Disabled low-income homeowners are also eligible for the program. (See Program H4.2.3 in the updated programs section.) The City of Big Bear Lake will provide information about the County's housing programs on the City's website and through brochures posted at City Hall. Big Bear residents who don't own computers can access the City's website at the public library. (See Program H4.2.1 in the updated programs section.)

P2.3 Establish appropriate procedures necessary to ensure the proper maintenance of all residential units in Big Bear Lake to eliminate conditions detrimental to the health, safety and public welfare. Include such procedures as: notifying owners of unsafe housing structures or debris and requiring the unsafe conditions to be removed; monitoring closely the provisions of the Private Home Rental Ordinance and revoking privileges when necessary; pursuing all violations of the appropriate codes pertaining to handicapped accessibility; and involving community input to assure fairness of implementation.

Status: Code Compliance and Building and Safety pursue code violations and conduct annual inspections of all private rentals. See Program H4.3.1 in the updated programs section.

P2.4 Bring the City's mobile home parks into conformance with City Zoning as much as possible. Coordinate rehabilitation of damaged units and promote weatherization programs with county and state agencies.

Status: Mobile home parks are designated on the land use map of 1999 General Plan. Policies included in General Plan text encourage preservation and enhancement of these parks. No rehabilitation or weatherization programs implemented. The County of San Bernardino Community Services Department operates a weatherization program for low-income households. The City is proposing to post information about the County's housing programs on the City website. (See Program H4.2.4 in the updated programs section.)

P2.5 Explore all regional, state and federal funding sources and facilitate acquiring funding for modifying dwellings for elderly and disabled people.

Status: No funds acquired. The County has a Senior Repair Program that provides funds to low-income homeowners for repairs to make units accessible and code compliant. (See Program 4.2.3 in the updated programs section).

P2.6 Assure adequate delivery of public services to all residents. Survey areas in need of public services, include and prioritize improvements in the citywide Capital Improvements Plan, implement public improvements.

Status: The City of Big Bear Lake Redevelopment Agency adopted a Five-year Implementation Plan in December 1999. Master plans for roads and drainage were completed in 1999. A pavement management plan was completed in 2000. A new fire station was completed and a paramedic program implemented in 2000. A master plan for sewer system upgrade was completed in 1999 and is being implemented. The capital improvement plan for 2000-2005 is being prepared. The Public Services Element was included in the1999 General Plan. A significant portion of City's annual budget was allocated to capital facilities and improvements.

P.2.7 Continue and encourage the existing Neighborhood Watch Program, citizen committees or other similar programs that facilitate cooperation between neighbors and participation in City programs.

Status: Ongoing through Citizen's Patrol and other programs.

P2.8 Develop appropriate conditions of approval for land use applications to assure that new residential development will occur in areas with adequate public infrastructure and facilities, protected from nuisances.

Status: All projects are reviewed and conditioned accordingly.

P2.9 Effectively coordinate all City departments in the implementation of programs related to decent housing.

Status: Coordination through Development Review Committee on new projects. Coordination of Building and Safety, Planning Division, Code Compliance and Fire Department on existing substandard housing and private home rentals. The Development Review Committee is a function of the land development process and is not included in the Housing Element as a program.

GOAL 3 HOUSING VARIETY

P3.1 Develop a geographic-based information system (GIS) to develop, collect, and maintain housing data and monitor the effectiveness of Housing Element programs.

Status: Not implemented due to budgetary considerations.

P3.2 Conduct surveys, enhance and update a housing needs database in an effort to establish a more accurate profile of the community's housing needs. Include an inventory of the City and Valley's developable land for future low and moderate-income housing.

Status: Planning Department staff has conducted an assessment of housing conditions and an inventory of vacant and underutilized sites for inclusion in the Housing Element update. The inventory is discussed in the Housing Conditions.

P3.3 In accordance with State provisions for Density Bonus, provide incentives to developers in the form of increased density, up to a 100 percent bonus, or other equivalent financial incentives for the development of housing units that will be available solely to low-income persons. In conjunction with these incentives, develop a standard agreement that will require a housing provider to keep housing available to lower-income segments for a 30-year period so that the City can achieve its Housing Element Goals for low-income households.

Status: Density Bonus Ordinance adopted 10-21-92. See Program 3.2.1 in the updated programs section. The density bonus was used to provide 73 units of affordable senior housing on land where zoning only allowed 31 units, which also included a 30-year covenant of affordability with a 10-year extension option.

P3.4 Provide information and referral services and monitor the provisions of the Fair Housing Act to ensure equal opportunity of choice throughout the housing market area for all residents regardless of race, religion, sex, marital status, ancestry, national origin, color, or physical disability. Publicize the availability of these services throughout the community by running periodic ads in the local newspapers, having literature available at the Chamber Commerce and real estate and rental office, among other means.

Status: The San Bernardino County Department of Economic and Community Development contracts with Inland Fair Housing and Mediation Board to provide fair housing services and landlord-tenant counseling to residents of "cooperating cities," that is, cities such as Big Bear Lake that receive their Community Development Block Grant funds through the County. The updated program section contains a proposal to list Inland Fair Housing on the City's website. See Program H.5.1 in the updated programs section.

P3.5 Include in the new 1992-1993 Zone Code density incentives and/or other methods such as promoting manufactured housing units, in order to encourage senior housing facilities, emergency shelters and single-room occupancy (SRO) type housing projects.

Status: Development Code update is in process, but this portion is not yet completed. However Density Bonus Ordinance 92-223 was adopted and a density bonus was granted to facilitate construction of 73 low-income senior housing units.

P3.6 Promote and assist the coordination of a housing referral service, especially for seasonal and contract workers. Encourage cooperation between local real estate agencies, resort businesses and the City's major employers.

Status: Not implemented. A program to conduct a housing needs survey of employees of the two ski resorts is included in the updated programs section as Program H2.4.1.

P3.7 Study and implement the methods for increasing affordable housing and long-term rental units, especially for seasonal workers, such as inclusionary housing requirements on commercial projects, construction of publicly-assisted dormitory residences, and other means.

Status: Not implemented.

P3.8 Facilitate affordable housing opportunities for lower-income households by encouraging and assisting the County Housing Authority, or a nonprofit organization, to apply for state and federal housing funds.

Status: Every year the City solicits applications for its share of CDBG funds (these funds are administered by the County of San Bernardino Department of Economic and Community Development.) The City allocates funds to a number of local nonprofit service providers, some of which provide or are planning to provide emergency housing vouchers or domestic violence shelter. This program is ongoing.

P3.9 Provide adequate sites for the development of 435 units of very low and low-income housing shall be provided. This shall be accomplished as follows:

a) Table 7 (in the old element) - Vacant Acreage and Potential New Residential Units - indicates that adequate sites are currently available without further City actions.

b) In addition, Programs 3.3 and 3.5 provide for density bonuses/incentives to exceed existing standards to encourage additional very low and low-income housing.

c) Should incentives and /or existing sites prove not to be adequate for the development of a variety of types of housing for all income levels, specifically the targets listed in Table 1, and then additional sites will be zoned at an appropriate density to accommodate that need.

Status: Adequate sites were provided and the density bonus ordinance was enacted. An accompanying ordinance to provide additional incentives was not enacted.

GOAL 4 FUTURE HOUSING DEVELOPMENT

P4.1 Provide adequate water supply and storage. Promote such efforts as wastewater re-use, water conservation measures, and acquisition of new water sources.

Status: Program established in 1989. Improvements ongoing.

P4.2 Accommodate and facilitate the approval of additional housing units by enacting a comprehensive Growth Management Program that specifies public infrastructure improvements to be included in the citywide Capital Improvements Program, a developer fee program consistent with the provisions of AB1600 to offset the cost of installing needed infrastructure, and financial incentives in the form of fee waivers and reductions for the achievement of housing development consistent with the goals, objectives and programs of the City's Housing Element.

Status: Growth Management Program established in 1985 and amended in 1991. Fee program ongoing and several capital improvement projects funded and completed. Program to be updated in 2001.

P4.3 Continue to implement streamlining measures for development review, such as the Planning Division's Operations Manual, and a rewrite of the City's Zone Code. Strive toward the coordination of uniformity of all City regulations relating to housing. Provide technical assistance by the Economic Development Specialist.

Status: Division's operations and procedures are updated continuously as needed. Development Code is in process of being updated.

P4.4 Update the General Plan Land Use Element. As part of the process, implement provisions allowing higher densities in certain areas under certain conditions, such as for multi-family rental projects near job markets.

Status: The entire General Plan including the Land Use Element was updated in 1999. The provision for higher densities in specified areas was not incorporated but a density bonus ordinance is in place.

P4.5 In revising the new, 1992-93 Zone Code, implement provisions for greater densities for multi-family projects in accordance with the General Plan and revise as appropriate.

Status: The City addressed the issue of increasing incentives for multi-family housing projects by adopting a density bonus ordinance. This ordinance provides for a density bonus of up to 100% under certain conditions such as projects where 100% of the units are affordable to very low or low-income households. A 73-unit senior project has already been constructed utilizing the new density bonus provision. (See Program H2.3.1 in the updated programs section.) The Zoning Code, now called the Development Code, is being amended. The amended code is expected to be adopted by December of 2002. (See Program H.1.2.2 in the updated programs section.)

P4.6 Revise the Big Bear Lake Improvement Agency Plan in order to set aside 20% of agency funds for the provision of low and moderate-income housing in accordance with the provisions of the State's Community Redevelopment law. Utilize the Community Redevelopment Law to facilitate provision of affordable housing for low and moderate-income persons displaced by redevelopment and those within the Improvement Agency Project Areas.

Status: The agency has set aside 20% of Redevelopment Agency funds for low and moderate-income housing. A 73-unit senior housing project was initiated with 23 units completed between 1998 and 2000 and another 50 units scheduled for completion in 2000. The agency continues to set aside 20% of its annual tax increment revenues for low to moderate-income housing.

P4.7 Require that all land use applicants for large-scale commercial developments analyze impacts of the project on housing.

Status: Implemented through the CEQA process on projects subject to CEQA review.

P4.8 Analyze the available government sources of funding and assistance from the following list of agencies and programs. Target applications for the most appropriate listed sources and actively seek funding on an ongoing basis.

Status: Not implemented.

P4.9 Leverage Improvement Agency and Revolving Loan funds with funds from private lenders to facilitate mixed use developments in C (Commercial) zones identified in the Moonridge and Big Bear Lake Improvement Project areas. Encourage and facilitate compliance with the Community Reinvestment Act.

Status: Not implemented.

P4.10 Assist private developers to assemble and clear substandard, under developed and blighted residential parcels for new residential development and to identify and prepare land suitable for new housing development.

Status: Not implemented.

III. POPULATION AND HOUSING CHARACTERISTICS

A. ANALYSIS OF POPULATION

1. Population

According to the 2000 Census, the population of Big Bear Lake increased by 87 persons between 1990 and 2000. In 1990 there were 5,351 persons in the City; the 2000 Census determined that in 2000 the estimated population was 5,438, a change of 1.6%. This increase was less than statewide where population increased 13.6% over the same period and less than San Bernardino County where population grew by 20.5% (291,054 persons) between 1990 and 2000.

According to data collected by the California Department of Finance (DOF), most of the population growth in San Bernardino County (80%) can be attributed to natural increase (excess of births over deaths), while net migration only accounts for 20%. DOF does not provide information on the components of population change for cities because the data provided by vital records are not considered accurate enough for small area calculations.[1]

2. Age of the Population

In 2000 the distribution of the population by age in Big Bear Lake differed considerably from the countywide age distribution, with a lower proportion of children age 19 or younger, and a higher proportion of persons age 65 and older. This may be because families with children are more likely to live closer to major employment centers. Big Bear Lake is separated by both distance and weather from the rest of San Bernardino County.

Table 2

Age Distribution of the Population

AGE	SAN BERNARDINO	BIG BEAR LAKE
19 and under	35.6%	24.8%
20-64	55.9%	57.8%
65 plus	8.5%	17.4%

Source: 2000 Census

[1] Personal Communication, California Department of Finance staff, February 2000.

3. Ethnicity

Table 3 shows the ethnic distribution of the populations of California, San Bernardino County and Big Bear Lake. In 2000, 81.5% of the population of Big Bear Lake identified themselves as White, 13.7% said they were Hispanic, .7% said they were American Indian, 0.8% said they were Asian, and 0.3% said they were Black. The area around Big Bear Lake, which the Census calls the Big Bear Division, had a similar ethnic distribution. In comparison, the 2000 population in San Bernardino as a whole was 44% White, 39.1% Hispanic, 8.8% Black, 4.9% Asian or Pacific Islander, 0.6% American Indian, Eskimo or Aleut and 0.2% other. It is difficult to account for this difference except to say that in the 11 geographic divisions of the County used by the Census in 2000, five of the smaller, more rural areas--Twentynine Palms, Yucaipa, Arrowhead, Red Mountain and Mount Baldy-- had ethnic distributions similar to that in Big Bear Lake while the large urbanized areas such as Ontario and San Bernardino were closer to the California-wide ethnic distribution of 46.7% White, 6.4% Black, 0.5% American Indian, 11.1% Asian, 32.4% Latino and 0.2% Other. The difference in ethnicity between Big Bear Lake and the larger cities in the County may be due to its location far from major employment centers and to its housing costs, which are higher than in many other parts of the County.

It is sometimes possible to estimate changes in a community's ethnicity over time by looking at school district data on the ethnicity of children. The Bear Valley Unified School District includes both the City of Big Bear Lake and its surrounding area. In 1990, these areas had a similar ethnic distribution. In 2000, data on ethnicity provided by the school district indicate that the area's ethnicity may have changed a little in the direction of the County and State. In the 1999 school population of Bear Valley Unified, 84.1% of children were White, 12.6% were Latino, 1.2% were Black, 1.0% were American Indian, and 1.1% were Asian. The higher proportion of Latino children in the school district may indicate that there is a greater proportion of Latino families in Big Bear Lake itself or in the surrounding communities, or that the Latino families who live in the school district are contributing proportionally more children to the school population.[2]

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[2] It should be noted that the School District encompasses a much larger area than the City and their figures may not reflect the geographic distribution of ethnicity throughout the District.

Table 3

Ethnic Distribution, City, County and State

	TOTAL POPULATION			CHILDREN
	California 2000	**San Bernardino County 2000**	**City of Big Bear Lake 2000**	**Bear Valley Unified 1999**
Ethnicity				
White	46.7%	44.0%	81.5%	84.1%
Black	6.4%	8.8%	0.7%	1.2%
American Indian	0.5%	0.6%	.7%	1.0%
Asian	11.1%	4.9%	0.8%	1.1%
Hispanic	32.4%	39.1%	13.7%	12.6%
Other	0.2%	0.2%	.2	0
2 or more races	N/A	2.5%	2.4%	

Source: 2000 Census and Bear Valley Unified School District 1999

4. Income

In 1990, median household income in Big Bear Lake was $26,563. This was considerably lower than the County median income of $33,443 or the statewide median income of $35,798. Income data from the 1996 Current Population Survey is available for a slightly different geographical area, that of County subdivisions. In 1996, the median income for the Big Bear subdivision was $32,031. The Big Bear subdivision encompasses an area with 20,554 inhabitants. Median household incomes for all San Bernardino County subdivisions in 1996 are shown in Table 4. The median income in the area of Big Bear Lake is lower than around Lake Arrowhead, about equal to the division that includes the City of San Bernardino and considerably higher than in Needles or Twentynine Palms.

Table 4

Median Household Income in 1996

COUNTY SUBDIVISION	1996 MEDIAN HH INCOME
Arrowhead	$ 40,373
Barstow-Victorville	30,580
Big Bear	32,031
Mount Baldy-Wrightwood	44,609
Needles	19,455
Newberry-Baker	26,525
Ontario	41,451
Red Mountain-Trona	31,145
San Bernardino	31,656
Twentynine Palms-Morongo Valley	21,603
Yucaipa	27,627

Source: 1996 Current Population Survey

B. ANALYSIS OF EMPLOYMENT

1. Occupations and Industry

The City of Big Bear Lake is a recreational community. The biggest recreational attraction is winter skiing; there are two large public ski resorts within the town. On weekends during the winter season there may be as many as 50,000 additional people in Big Bear Lake. During the winter months one resort adds about 1,000 employees to the town's workforce, while the other employs between 650 and 740 extra employees. Many of these workers come from other communities; others are local residents who work in the resorts in the winter and may work construction or other jobs in the summer months. A number of part-time winter employees commute on weekends from other parts of San Bernardino County. According to data provided by Big Bear Mountain Resort, 45% of their winter employees live in Big Bear Lake and the surrounding area, 27% come from the High Desert communities, 3.2% from other parts of San Bernardino County, 10% from Los Angeles County and 14.8% from other counties including Riverside, Santa Barbara, Orange, San Diego, and other parts of the State.

Other major sources of employment in Big Bear Lake are construction, retail sales and the professions. The distribution of year-round work by industry in 1990 is summarized in Table 5.

Table 5

Big Bear Lake Employment by Industry 1990

INDUSTRY	NUMBER	PERCENT
Agriculture, forestry and fisheries	33	1.4
Construction	426	17.8
Manufacturing	127	5.3
Transportation	33	1.4
Communication, public utilities	41	1.7
Retail trade	555	23.2
Finance, insurance, real estate	195	8.2
Business & repair services	90	3.8
Personal services	230	9.6
Entertainment, recreation	63	2.6
Professional-health, education & other	460	19.2
Public administration	139	5.8
Total	2,392	100

Source: 1990 Census

Ten years have passed since this information was collected and the distribution of employment by sector may have changed somewhat during that period with fewer construction jobs now available than in the 1980s. When the number of units constructed between 1981 and 1989 is compared to the number built between 1989 and 1998, it turns out that fewer than half as many units were constructed during that later period. This was probably due to the severe recession in California in the early 1990s that nearly halted housing construction and drove many developers out of business. Building has picked up again. In fact, while the average number of new units per year between 1990 and 1998 was 56, in 1999 117 new units were constructed, in 2000, 122 new units have been constructed and 140 new units were constructed in 2001, which includes 54 timeshare units.

Current 2000 Census information is not available by employment sector. However, a 1997 Economic Census indicated that the largest employment industries included accommodation and food services, which comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption, employing 688 persons; real estate and leasing with 616 employees; retail trade with 600 employees; and arts, entertainment and recreation with 428 employees. No statistics were

provided for the construction sector; however, based upon the number of building permits that have been issued over the last three years, it is expected that this is a significant employment sector.

C. HOUSING CHARACTERISTICS

1. Number of Housing Units

The City of Big Bear Lake is a recreational community located at the edge of a mountain lake. Only 26.4% of its housing units are occupied year-round, while 73.6% of its housing units are second homes, occupied intermittently. The most prevalent housing form in Big Bear Lake is the single-family house. According to data collected by the California Department of Finance, in 2000, only 1,035 (13%) of the City's dwelling units are in multi-family buildings, while 7,850 (83%) are single-family units and 361 (4%) are mobile homes.

A unique feature of Big Bear's housing stock is the use of a number of second homes in the single family housing stock as short-term rentals for at least part of the year. The City regulates these rentals, requiring an inspection for compliance with building and safety codes, a business license and a posted notice with information on how to contact the owner.

Most of the City's residentially-zoned land is zoned for single family uses with the minimum lot size ranging from a low of 7,200 square feet in the SFR-4 area to two and half acres in an area designated Rural Residential. However, some areas of the City, developed before the City was incorporated in 1980, have typical lot sizes of 5,000 square feet or less. Since these are legal lots of record, the City permits building on these vacant parcels.

Between 1981 and 1989, 1,455 new housing units were constructed in Big Bear Lake. New building slowed considerably in the next decade, with only 696 new housing units built between 1990 and 2000. The net increase was 694 units because the number of mobile homes decreased by two. In 2001, building permits were issued for an additional 140 units.

A glance at Table 6 below shows a development pattern that differs markedly from urban areas in California. For most of the decade, no new condominium units were built, nor were any units built in projects of five or more units until 1999. Over the past two years, 50 additional units in projects of five or more units were built and over the decade, 52 units in projects of between two and four units were built. The other 580 new units were all single-family units. However, despite the addition of 682 units, the number of year-round occupied units only increased by 179 In keeping with the recreational character of the community, the remaining units were second homes. In 2001, building permits were issued for 54 multi-family units.

Table 6

Growth in Housing Units 1990 - 2000[3]

YEAR	TOTAL UNITS	SINGLE FAMILY DETACHED	SINGLE FAMILY ATTACHED	2-4 UNITS	5+ UNITS	MOBILE HOMES	OCCUPIED UNITS
1990	8564	7050	218	502	431	363	2262
1991	8597	7083	218	502	431	363	2271
1992	8694	7176	218	502	431	363	2296
1993	8769	7243	218	506	431	363	2316
1994	8821	7289	218	514	431	363	2330
1995	8857	7325	218	520	431	363	2339
1996	8911	7379	218	520	431	363	2353
1997	8950	7426	218	520	431	355	2363
1998	9019	7488	218	522	431	360	2381
1999	9136	7546	218	554	457	361	2412
2000	9246	7632	218	554	481	361	2441

Source: California Department of Finance, Report E-5

2. Vacancy

According to the 2000 Census, most of Big Bear Lake's 9,246 units (73.1%) are second homes; only 2,343 units are occupied year-round. The 2000 Census indicates that the homeowner vacancy rate is 8.3%, whereas, the rental vacancy rate is 16.6%. However, the status of the many vacation units in Big Bear Lake is somewhat fluid since homeowners may at various times use their second homes as short-term or long-term rentals. The City now regulates short-term rentals, requiring property owners to register these units and submit them to a City inspection for code compliance.

3. Tenure

Current information on tenure is not available. In 1990, 41.5% of Big Bear Lake's 2,262 permanent households were renters while 58.5% were owners. The majority of renters (67.5%) lived in single-family dwelling units while the remaining households rented condominiums, multi-family units and mobile homes. Nearly all homeowners (88%) lived

[3] In Table LU-1 of the City of Big Bear Lake Land Use Element there are 740 units listed in structures of 2 to 4 units in 1998. The source of the difference is under review.

in single-family dwellings but a few occupied condominiums, duplexes, four-plexes or mobile homes.

4. Age of Housing

Most of the City's housing stock is relatively new with more than half of the City's housing units built in the last thirty years. Housing units built in 1978 before stringent limits on the amount of lead in paint were imposed, may have interior or exterior building components coated with lead-based paint. Housing units built before 1950 are the most likely to need rehabilitation and to have lead-based paint in deteriorated condition. Lead-based paint becomes hazardous to children under age six and to pregnant women when it peels off walls or is pulverized by lead-based paint coated windows and doors slamming into their frames. Crumbled exterior lead-based paint can sometimes be found mixed into bare soil near residences. Young children who crawl through areas where there is leaded dust or soil and then put their hands in their mouths are most at risk. Children under age six and pregnant women living in older units in poor condition should be screened for elevated blood lead levels by a physician.

Table 7

Big Bear Lake Housing Stock by Year Built

YEAR STRUCTURE BUILT	NUMBER
2001	140
1990-2000	694
1989-March 1990	528
1985-1988	1,208
1980-1984	888
1970-1979	2,182
1960-1969	1,595
1950-1959	582
1940-1949	695
1939 or earlier	685
date unknown	201
Total	9045

Source: 1990 Census and California DOF, Report E-5
2001 data based on Building and Safety records.

5. Housing Condition

Between November 1999 and February 2000, staff of the Big Bear Lake Planning Division conducted a "windshield" survey of the condition of every housing unit in the City. Staff assessed the condition of each unit as good, moderate or poor using an assessment tool roughly based on the categories used by the American Housing Survey. Units with peeling paint or missing roof shingles were categorized as moderately deteriorated while units with a sagging roof, holes in the walls or other extreme conditions were described as in poor condition. The survey found 89 multi-family units on 19 properties in moderately deteriorated condition and 53 multi-family units on 12 properties in poor condition. In the single family housing stock, there were 550 homes in moderately deteriorated condition and 84 in poor condition. Mobile homes in the City's five mobile home parks were mainly in good condition with only 21 of mobile home units assessed as fair and none as poor. The survey did not distinguish between deteriorated units needing substantial rehabilitation and those needing replacement. The inventory of housing condition and vacant and underutilized land is available for review at the Planning Division.

6. Overcrowding

The Census defines overcrowding as more than 1.01 persons per room and severe overcrowding as more than 1.50 persons per room. In 1990, there were only 2.36 persons per unit in the City's occupied housing units. In fact, in owner-occupied housing units only 17 units were overcrowded and only 13 units were severely overcrowded. In renter-occupied housing only 53 units were overcrowded and only 39 units were severely overcrowded. The overall rate of overcrowding was 5.3%. The number of persons per households increased very slightly over the decade; the California Department of Finance estimates that there were 2.587 persons per unit in January 2000. This could indicate that more families are doubling up because housing costs are too high or that the population is slightly younger and there are more children.

7. Overpayment

According to federal standards, households that pay more than 30% of household income for housing are "overpaying." When the housing costs of lower income households gobble up large portions of their incomes, there is little money left to pay all the other necessary costs such as food, clothing, medical care, transportation, computers, and so on. In 1990, all of the 200 Big Bear Lake households earning less than $10,000 per year were paying more than 30% of their incomes for rent and 88% of the 256 households earning between $10,000 and $19,999 were paying more than 30% of their incomes for rent. These are the households most likely to need assistance with housing payments. Loss of income arising from unemployment or disability or large expenses for medical care or other needs can expose these families to possible eviction and subsequent homelessness.

In Section IV, Housing Needs and Resources, rental costs in Big Bear Lake are compared to rent paying ability in order to assess the affordability gap for low- and moderate-income households in the City.

8. Mobile Home Parks

There are five mobile home parks in Big Bear Lake. These five parks have 330 spaces and 291 mobile homes[4] of which 57% are occupied year round. Table 8 provides information about the City's mobile home parks including the number of spaces and the space rent in each park. Space rent can be an issue for mobile home owners on limited incomes if owners raise rents to unaffordable levels. The space rents in the City's mobile home parks range from $290 per month to $600 per month. Mobile homes can be an affordable alternative to single family or condominium ownership as long as the space rents remain affordable. Big Bear Lake permits the siting of mobile homes on lots zoned for single and multi-family use as well as in mobile home parks. When City staff surveyed the condition of mobile home units in these parks in 2000, they found that nearly all the units were in good condition, only 21 were in fair condition and none were considered in poor condition. The following numbers are based on a telephone survey conducted in May 2001, and indicate a decrease in the number of occupied spaces (291) from that of the Department of Finance in January 2001 (361).

Table 8

Mobile Home Parks

PARK NAME AND ADDRESS	# OF SPACES	# OCCUPIED	% YEAR-ROUND	MONTHLY RENTS
Big Bear Mobile Home Estates 547 Alden Road	64 (18 RV)	46	75%	$322-$378
Lakeside Village Mobile Home RV Park 41150 Lahontan Dr.	64	*37	27%	$355- $600
Trails End Trailer Park 475 Thrush Drive	72	65	60%	$345[5]
Lakeview Pines MHP 39609 Big Bear Boulevard	50	50	44%	$290-$320
Leisure Bear MHP 41044 Big Bear Boulevard	80	75	74%	$295
Total	330	273		

Source: City of Big Bear Lake Planning Division, 2001 *New information obtained 11/21/01; an application is pending to close this mobile home park.

[4] A few of the spaces are occupied by recreational vehicles rather than by mobile homes.

[5] Rent for purchasers of a new mobile home is $195 per month for the first year of occupancy.

IV. HOUSING NEEDS AND RESOURCES

A. GENERAL POPULATION NEEDS

1. Definitions

a. Regional Housing Needs Assessment (RHNA)

The Southern California Association of Governments (SCAG) is a regional government encompassing five counties: Los Angeles, San Bernardino, Riverside, Ventura and Santa Barbara. Periodically, this regional body and its counterparts throughout the state prepare a Regional Housing Needs Assessment (RHNA). The RHNA estimates population and housing growth throughout SCAG's five-county region. Based on this growth, SCAG estimates future housing need, assigning a "fair share" of regional housing growth to each jurisdiction within the region. The jurisdiction's Housing Element must include these growth figures, and must provide sufficient sites to accommodate the prescribed fair share of growth. The Housing Element must also include programs designed to ensure that the housing units constructed or rehabilitated during the element's planning period will meet the needs of all income groups in the community.

b. Affordable Housing

The term "affordable housing" usually refers to housing that is affordable to lower income households. The federal standard for housing affordability is housing costs that do not exceed 30% of household income. Most banks also adhere to this standard when calculating loan amounts for home mortgages.

Each year the U.S. Department of Housing and Urban Development (HUD) sets the amount of "median income" for each county or Metropolitan Statistical Area. In San Bernardino County the 2001 median income for a family of four was $49,900. The Housing Authority of San Bernardino County established eligibility levels for very low, low and moderate-income families by household size. Those income levels are set forth in the table below. Definitions of very low, low- and moderate-income vary from jurisdiction to jurisdiction. According to federal standards, households earning 30% or less of median income are extremely low-income, households earning 50% or less of median income are very low-income, households earning between 51% and 80% of median income are low-income, and households earning between 81% and 120% of median income are considered moderate-income. Some programs, such as Section 8 rental assistance, are open only to persons with very low-incomes. Other programs, such as those funded with HOME funds may assist families earning up to 80% of median income.

The income standards set by SCAG for the RHNA are somewhat different from those set by the federal government. For purposes of the RHNA, very low income is income at 50% or less of median income, low income is between 51% and 80% of median income, moderate income is between 81% and 120% of median income and high income is income above 120% of median. Table 9 shows the incomes in these categories by family size in San Bernardino County in 2000.

Table 9

Income Definitions by Household Size

HOUSEHOLD SIZE	VERY LOW INCOME[6]	LOWER INCOME	MEDIAN INCOME	MODERATE INCOME
1 person	$17,450	$27,950	$34,950	$41,950
2 persons	19,950	31,950	39,900	47,900
3 persons	22,450	35,950	44,900	53,900
4 persons	24,950	39,900	49,900	59,900

Source: HCD Website www.hcd.ca.us 2001

2. Existing Need (SCAG Overpayment Estimates)

The RHNA estimates the number of households paying more than 30% of their incomes for housing and the number of households that are overcrowded. In Big Bear Lake, 573 renter households and 517 owner households at all income levels have housing problems. Table 10 shows existing housing need by tenure and income level. For planning purposes, the 855 households with housing needs that earn 50% or less of median income are the households most likely to need public assistance to meet those needs. Since these numbers are estimates based on a ten-year-old census, and the exact nature of the housing need is not specified, it is difficult to translate the numbers into housing programs.

[6] Very low-income is income at 50% of area median. The state and federal government have an even lower category, extremely low-income for households earning 30% or less of median income. These households often have fixed incomes of $500 or $600 per month or work for minimum wage earning only about $996 per month.

Table 10

Existing Housing Need According to SCAG

	ALL INCOMES	<30% MEDIAN	30%-50% MEDIAN	50%-80% MEDIAN	80-95% MEDIAN	95-120% MEDIAN	>129% MEDIAN
Owners	1,429	102	150	238	86	132	722
Renters	952	189	224	194	46	79	218
Total	2,381	290	375	431	134	211	940
Owners w/ Housing Problems	517	90	100	114	33	56	125
Renters w/ Housing Problems	573	172	210	114	30	21	25
Total w/ Housing Problems	1,090	262	310	228	63	77	150

Source: Southern California Association of Governments

3. SCAG Fair Share

The Fair Share is the number of units that should be built in Big Bear Lake over a five-year period to accommodate projected population growth. SCAG projects an additional 133 households by July 2005, and a need for 102 additional housing units. The RHNA breaks down future housing need by income group. The following table shows the future housing need by income category.

Table 11

SCAG Future Housing Need by Income Group

INCOME GROUP	NUMBER OF UNITS
Very low (<50% of median income)	28
Low (51% to 80%)	18
Moderate (80% to 120%)	16
High (>120%)	41
Total	102

Source: Southern California Association of Governments

4. Rental Costs and Ability to Pay

In 1999, the Big Bear Lake Improvement Agency conducted a survey of rental costs in the City. The survey found that rental costs in Big Bear Lake are modest compared to urban areas like Los Angeles, San Jose or San Francisco. But with typical wages in the service and retail sectors, both important sectors in Big Bear Lake, between $7.90 and $10 per hour, families in these occupations can only afford a one-bedroom apartment. For minimum wage workers and families on welfare even a one-bedroom apartment gobbles up between 40% and 63% of income. Table 11 shows typical incomes in low-wage sectors, calculates 30% of monthly income and then compares that amount to the average rent for various unit sizes. The affordability gap is the difference between the rent and 30% of household income.

Table 12

Rental Costs versus Ability to Pay 1999

WAGE RATE	GROSS MONTHLY INCOME	30% OF GROSS MONTHLY INCOME	1 BDRM $350-$450 $400 AV. AFFORD. GAP	2 BDRM $500-$575 $550 AV. AFFORD. GAP	3 BDRM $600-850 $750 AV. AFFORD. GAP
TANF	$ 626	$ 188	- $ 212	- $ 362	- $ 562
$ 6.75/hour	1,152	345	- 55	- 205	- 405
7.90/hour	1,369	410	+ 10	- 140	- 340
9.00/hour	1,560	477	+ 77	- 73	- 233
10.00/hour	1,733	519	+ 119	- 31	- 231

Source: Big Bear Lake Improvement Agency, 1999 and Karin Pally Associates, 2000, Planning Staff 2001

The minimum wage is only $6.75 per hour. A minimum wage household earns only $1,152 per month and can afford only $345 per month for rent. In Big Bear Lake this household would have to pay 40% or more of its income for rent. Families receiving Temporary Assistance to Needy Families (TANF), the new name for welfare, receive only $626 per month for a family of three. This family could only afford $188 per month for rent. The 260 households receiving TANF in Big Bear Lake may be paying half or more of their incomes for rent.

The chart does not provide an inventory of the number of units available at each price level but a look at 1990 Census data tells us that in 1990, more than 90% of all households earning 76% or less of the median income of $26,563 were paying more than 30% of household income for rent. Of those earning between 76% and 135% of median, 47% were paying more than 30% of income for rent. It therefore appears likely that there is a mismatch between income and housing prices in the City and that many low-income households are overpaying.

5. Homeownership Costs

According to data from DataQuick Information Systems, La Jolla, published in the Los Angeles Times on June 1, 2000, the April 2000 median home price in Big Bear Lake zip code 92315 was $169,000. This was a 38.5% increase over the price in the same month of 1999. The median condominium price was $171,000, a 191.5% increase over 1999. In April 2000, 33 homes and 4 condominiums were sold. The median price of a home in Big Bear Lake was considerably higher than the median price of $112,000 in the County as a whole.

Typically, in order to afford the DataQuick median home price with a 10% down payment and a 7.5% mortgage rate, a family would have to earn $59,533 per year. The monthly payment, including private mortgage insurance, taxes and property insurance would be $1,389. A family with the county median income of $47,200 per month could afford a home priced at $135,083. Monthly payments would be $1,110 per month.

Table 13 shows the price, qualifying income and monthly payment for homes at the average price and the price that a family earning the median income in San Bernardino County could afford.

Table 13

Sales Prices and Qualifying Incomes, Big Bear Lake, 2000[7]

PRICE	QUALIFYING INCOME	DOWN PAYMENT	INTEREST RATE	MONTHLY PAYMENT INCLUDING PMI, TAXES & INSURANCE
$169,000 (L.A. Times)	$ 59,533	$ 16,900	7.5%	$ 1,389
135,083 (HUD Median Income 2000)	47,200	13,508	7.5%	1,110

Source: L.A. Times, Big Bear Board of Realtors, Homefair.com and Karin Pally Associates

In Table 14, housing sales data provided by First American Real Estate Solutions shows the distribution of housing prices in Big Bear Lake between January and June 2000.

[7] The amount of loan and down payment varied on assumptions of the amount of savings and debt as well as income.

Table 14

Big Bear Lake Housing Sales January through June 2000

PRICE RANGE	NUMBER OF SALES	RANGE MEAN PRICE	MONTHLY PMT.	QUALIFYING INCOME
less than $50,000	16	$33,593	$ 275.72	$ 11,817
$ 50,000 - 74,999	10	67,900	558.11	23,919
75,000 - 99,999	27	88,203	725.00	31,071
100,000 - 124,999	24	111,687	918.02	39,344
125,000 - 149,999	36	135,083	1,110.33	47,586
150,000 - 174,999	38	160,539	1,319.57	56,553
175,000 - 199,999	13	187,807	1,543.69	66,158
200,000 - 224,999	13	212,692	1,748.25	74,925
225,000 - 249,999	8	236,000	1,939.82	83,135
250,000 - 299,999	18	277,250	2,278.89	97,667
300,000 - 349,999	18	335,000	2,753.56	118,010
350,000 - 399,999	5	368,100	3,025.64	129,670
400,000 - 449,999	2	421,750	3,466.61	148,569
450,000 - 499,999	0	0	3,904.30	167.237
500,000 plus	8	727,812	5,982.32	256,385
Total	223			

Source: First American Real Estate Solutions

In the first six months of 2000, a third of the units sold (77 units) were affordable to households at or below the area median income of $47,200 established by HUD. A quarter of all sales (53 units) were affordable to households earning 80% of the median income or $37,750 per year. These households would be eligible for the County's two homeownership assistance programs. Two thirds of all homes sold were priced at less than $175,000. However, it is important to note that the median home price in Big Bear increased by nearly 40% between June 1999 and June 2000. If prices continue to increase at this rate, few homes in Big Bear Lake will be affordable to homebuyers at or below the County median income.

B. SPECIAL NEEDS

1. Elderly

In 2000, 17.4% of the City's population was age 65 and older. This proportion was higher than that of the County of San Bernardino as a whole. With its rigorous winters that require homeowners to regularly shovel snow out of their driveways, Big Bear Lake doesn't resemble the typical retirement community. However, the City offers scenic beauty, a village environment and year-round recreational activities.

According to 1999 data provided by the Social Security Administration[8], there are 1,920 recipients of Old Age Security and Disability Income (OASDI) in Big Bear Lake aged 65 or older, and 200 persons who receive Supplemental Security Income (SSI). Persons eligible to receive OASDI include retired workers and their widows or widowers and children of deceased workers of any age. Those persons eligible to receive SSI include children and adults with functional disabilities likely to prevent them from working or leading to their death. Under certain circumstances, impoverished workers over age 65 who are receiving only social security income and have limited assets may also be eligible for SSI. Given that some eligible workers are still working and may not be collecting benefits and that some persons over age 65 are not eligible for benefits, it is not possible to simply equate the number of OASDI recipients to the number of persons aged 65 and older. However, this figure can serve as an indication of the size of the older population in the City. In this case, about 21% of the City's residents are OASDI recipients.

Potential Resources and Solutions

In recognition of the needs of frail and/or low-income elderly persons, the City has recently built 73 low to moderate-income senior units. The Big Bear Lake Parks and Recreation District has a senior center located within the City with 900 members. At present the senior center serves a noon meal once a week.

The ability of frail elderly persons to remain in their homes may depend upon the availability of in-home supportive services. In Big Bear Lake there is a Meals on Wheels program that delivers meals to home bound persons. The San Bernardino County Department of Aging and Adult Services, which provides in-home supportive services as well as many other programs, is planning to open an office in Big Bear Lake in the next several years. Social services staff in the proposed center will be able to assess the needs of elderly persons for housing and other services and help elderly clients obtain those services.

Section 202: Additional housing for low-income elderly persons could be constructed using the federal Section 202 Program. Designed for low-income elderly persons, Section 202 housing must be owned and operated by a nonprofit but local government can be a 49% partner. Because Federal cost restrictions are very stringent, local governments often invest additional funds in Section 202 projects to meet local standards for design and

[8] OASDI Benefits by State, Office and Zip Code Area. (December 1999). Social Security Administration.

amenities. A number of large organizations in California, such as the Retirement Foundation of America, develop and operate Section 202 housing.

Senior Repair Program: The San Bernardino County Senior Repair Program provides funds to repair and install accessibility modifications in the homes of low and moderate-income senior and disabled households.

2. Disabled

In 1990, the Census identified 120 persons aged 16 to 64 with a mobility limitation, a self-care limitation or both. There were 77 persons aged 65 or older with a mobility limitation, a self-care limitation or both. Persons of low-income with self-care limitations are those most likely to need assisted housing. In 2000, the Family Counseling Center has 57 clients with chronic mental illness who live in Big Bear Lake. These clients are considered disabled because they have a chronic mental illness.

Potential Solutions and Resources

The City of Big Bear Lake does not have any housing units designated for disabled persons. There are 73 units for very low to moderate-income seniors that can accommodate persons with mobility limitations. The County of San Bernardino Department of Economic and Community Development Senior Repair Program provides funds for repairs and accessibility modifications for low- and moderate-income senior and disabled households. Unfortunately, there are no group homes or board and care facilities for persons with mental disabilities in Big Bear Lake so persons with chronic mental illnesses have to go to other parts of the County if they need such housing.

3. Large Families

In 1990 there were 105 renter households with five or more persons but only 28 occupied units with four or more bedrooms. In owner-occupied housing there were 237 units with four or more bedrooms but only 106 households with five or more persons. The analysis of housing need prepared by the Big Bear Lake Improvement Agency in Table 12 shows that low-income households with five or more persons would have to pay more than 30% of their income to obtain units with three or more bedrooms. The gap varies with the hourly wage. Families receiving Temporary Assistance to Needy Families (TANF) would have to pay 90% of their income for a three-bedroom rental unit while families earning $10 per hour would have to pay 43% of their income for a three-bedroom rental.

Potential Solutions and Resources

There are no subsidized units for low-income families in Big Bear Lake. Eligible families can apply to the Housing Authority of San Bernardino County for Section 8 rental assistance vouchers. Thirteen Big Bear Lake families currently have Section 8 vouchers and two families are on the waiting list. The County has 7,000 vouchers. The current waiting list, last opened in 1998, has 5,000 names. The Housing Authority will be opening the waiting list in February 2002. The City should cooperate with the Housing Authority to ensure those Big Bear Lake families who need housing assistance are able to add their names to the waiting list.

4. Female Headed Households

According to the San Bernardino County Department of Human Services, there are 260 families receiving Temporary Assistance to Needy Families (TANF), in the City of Big Bear Lake. The County estimates that 175 of these households are female-headed. There are no current estimates for the overall number of female-headed households in the City. In 1990, the Census counted 147 female-headed households with children under 18 and 45 female-headed households with no children under 18. The 175 female-headed families receiving TANF are those most likely to have housing problems. However, there may be additional lower-income female-headed families in the City who also need housing assistance.

SCAG estimates that 413 low-income renter households are overpaying for housing in the City. With TANF payments set at only about $626 per month for a three-person family, it is likely that TANF recipients are among those who are most rent burdened.

Potential Solutions and Resources

There are a number of housing needs in the City and few resources to meet them. While SCAG calls for only 46 new low- and very low-income units a year for the next five years, the City has built 73 new units for low and moderate-income seniors. This leaves only the redevelopment agency with about $238,500 per year to develop affordable family units. The most likely financing sources for the creation of affordable rental units are the tax-exempt bond program combined with the four percent low-income housing tax credit, the new multi-family housing finance program in the California Department of Housing and Community Development, grants from the Affordable Housing Program of the Federal Home Loan Bank and the County of San Bernardino's multi-family construction and rehabilitation program.

Although the highest density permitted in the City is 12 units per acre, the City does have a density bonus program that conforms to state density bonus law and will permit a density bonus of up to 100% for projects providing 100% affordable housing. If a willing developer could be found, a rental housing project with market rate and affordable units could be constructed using a combination of tax-exempt bond funds, the density bonus and other City concessions.

The County of San Bernardino Department of Economic and Community Development (ECD) does have two programs that could help moderate-income female-headed households to purchase a home. These programs are: 1) a reduced interest rate loan program administered by a number of banks; and 2) the Housing Assistance Program (HAP) that provides help with down payments and closing costs.

The San Bernardino County Housing Authority operates a Section 8 rental assistance program with 7,000 vouchers. The waiting list, which was last opened in 1998, has 5,000 names, but only two of them are residents of Big Bear Lake. Currently, 11 families residing in Big Bear Lake have Section 8 vouchers. The agency expects to open the waiting list again in February 2002. While the Housing Authority does extensive outreach to community members when its waiting list is opened, it would be helpful if the City were to assist in planning the outreach to ensure that all families in need of housing assistance

were informed about the Section 8 program.

There are no subsidized housing units in the City for non-elderly persons. The City has several social service agencies serving low-income families. These include the Family Resource Center, DOVES, a domestic violence agency, and Operation Breakthrough, a substance abuse treatment program. DOVES has a six-month shelter program with 18 beds for battered women and their children and a Cal Works program. Emergency food and clothing, and shelter vouchers are available from Eternal Light Ministries, which is also planning a job training and job readiness program.

5. Homeless

It is difficult to estimate the number of homeless persons in Big Bear Lake because no one agency is responsible for coordinating the City's response to homelessness. Eternal Light Ministries, an agency that provides emergency food and clothing and shelter vouchers, provided shelter vouchers to 75 single adults and 15 families with 45 family members over a 12-month period between 1999 and 2000. In the case of two of the requests, even though the agency had shelter vouchers, no motel rooms were available at the price paid by the voucher. Accordingly, two homeless families were housed in a local campground in tents provided by Eternal Light. In winter, if no shelter can be obtained within the community, homeless individuals or families have to take the bus to San Bernardino where there is a motel that accepts shelter vouchers.

Potential Solutions and Resources

There is no emergency shelter in Big Bear Lake. DOVES operates an 18-bed transitional housing program for victims of domestic violence and their children. This is a six-month program. Over the course of a year the DOVES program houses 40 adult women and 35 children. About half the women who leave the program move "down the hill" because they are unable to find affordable housing and full time employment in Big Bear Lake. There are no transitional housing units for homeless individuals or families with general needs.

The County of San Bernardino Community Services Department (CSD) is responsible for development of the federally mandated Continuum of Care for homeless persons in the County. CSD has hired a Homeless Coordinator who is creating a website for the Homeless Coalition, an organization initiated by CSD to coordinate homeless services in the County. The Homeless Coordinator is also trying to help form local coordinating groups in various geographic areas of the County. Since the Coalition is in the earliest stage of formation, it will be some time before it is able to provide any assistance for the development of homeless services. The City of Big Bear Lake could stimulate the development of a local coordinating group by bringing together providers of homeless and supportive services, and helping the group identify needs and plan the development of a transitional housing facility for families. Funding for this project is already one of the goals of the Big Bear Lake Improvement Agency's Five-Year Implementation Plan. Additional funding could be sought from the Emergency Housing Assistance Program (EHAP), operated by the California Department of Housing and Community Development.

a. Emergency Housing

There are three different grant programs for the capital and operating costs of emergency shelters.

Emergency Housing Assistance Program (EHAP): The EHAP program is administered by the California Department of Housing and Community Development. The state conducts a competitive application for these funds every year. Information about the program can be obtained by contacting Bill Andrews at (916) 322-0919.

Emergency Food and Shelter Program (EFSP): This grant program is based on funds provided by the Emergency Food and Shelter National Board Program. San Bernardino County receives an annual allocation of these funds. The application process is managed by the United Way of Mt. Baldy. The program administrator at United Way of Mt. Baldy is Javier Contreras. Mr. Contreras can be contacted at (909) 980-1994.

Federal Emergency Shelter Grant (FESG): This grant program is administered by the San Bernardino County Department of Economic and Community Development which uses it to pay for the County's Cold, Wet Weather Shelter Program.

b. Transitional Housing

HUD Supportive Housing Program: The application process for the HUD Continuum of Care Supportive Housing Program will be managed by the San Bernardino County Community Services Department. The Supportive Housing Program will pay up to $400,000 for capital costs, 75% of operating costs and 80% of supportive services costs. Transitional housing may be offered to clients for between six and 24 months. Grants are usually made for three-year periods and are renewable. In addition to the Supportive Housing Program, the HUD Continuum of Care Program includes Shelter Plus Care, a program that provides Section 8 certificates to permanently house mentally or physically disabled persons and the Section 8 SRO Moderate Rehabilitation program to provide SRO housing for disabled persons.

6. Farm Workers

According to the 1990 Census, there were no farm workers in Big Bear Lake. Big Bear Lake is a recreation area adjacent to a national park. There is no agricultural land within the City. The City is located in a mountain recreation area and is not adjacent to any farming region.

7. Temporary Resort Workers

During the winter months, the two ski resorts in Big Bear Lake add approximately 1,740 additional workers. Some of who work full-time, while the others are part-time weekend workers. Not much is known about where these workers come from, where they live while they work in Big Bear Lake and how they are housed. One resort did survey its workers

and found that 45% of their winter employees live in Big Bear Lake and the surrounding area, 27% come from the High Desert communities, 3.2% from other parts of San Bernardino County, 10% from Los Angeles County and 14.8% from other counties including Riverside, Santa Barbara, Orange, San Diego, and other parts of the State and other countries. The updated programs section contains a proposed program to work with the personnel departments of the two resorts to find out more about where temporary resort workers live and how they are housed.

8. Fair Housing Programs

The San Bernardino County Department of Economic and Community Development contracts with Inland Fair Housing and Mediation Board to provide fair housing services to cooperating cities and unincorporated areas. Big Bear Lake is considered a "cooperating city" because the County administers its CDBG funds. Services provided by Inland Fair Housing include investigation of fair housing complaints, landlord-tenant counseling and dispute resolution. Inland Fair Housing and Mediation Board also provides education and outreach about fair housing, conducts fair housing workshops to train property managers and produces the Fair Housing Quarterly which is mailed to property owners throughout San Bernardino County.

According to Inland Fair Housing and Mediation Board residents of Big Bear Lake filed no discrimination complaints in 1999 but two complaints were filed in the first quarter of 2000. Information on the disposition of those complaints was not available. Inland Fair Housing, which provides services countywide, schedules only one staff outreach day in Big Bear Lake each year. At that time, the staff member distributes brochures to public locations such as City offices and the library and to nonprofit organizations such as the senior center and social services agencies. It was not possible to determine whether the small number of discrimination complaints arises from a lack of knowledge about fair housing rights, a lack of knowledge about Inland's services or the absence of discrimination in Big Bear Lake's housing market.

C. ADEQUATE SITES AND SERVICES

1. Land Zoned for Residential Use

The City of Big Bear Lake has already met its 1998-2005 regional fair share allocation of 102 new housing units by constructing 73 permanent units for very low to moderate-income seniors and 144 market rate single family units, for a total of 217 new housing units.

In the City of Big Bear Lake's 1999 General Plan, 2,411.9 acres are designated for residential use. An additional 84.2 acres are designated for residential use with a Camp Overlay. Once the camp use has terminated, the land may be developed at the designated residential density.

According to the City's Land Use Element, the 331.9 acres of land designated for multi-family residential development will accommodate 3,982 units at build-out. As of January 2000, the City has 1,253 attached and multi-family units. Although some of the land

designated for multi-family use is occupied by single-family units, an additional 3,133 units can be built on vacant or underutilized lots in the single family (SFR-3 and SFR-4) and multi-family (MFR) zones. The multi-family areas can accommodate 1,265 additional multi-family units and the single-family areas, can accommodate 1,868 additional single-family units. A partial inventory of housing conditions and additional residential capacity of all land designated for residential uses on the General Plan Land Use Map and the Village Specific Plan was conducted by the Planning Division staff in 2000. This survey indicated that only an additional 214 multi-family units could be accommodated at build-out. A subsequent and more comprehensive survey conducted in February of 2001 that specifically inventoried sites that would be available for multi family uses determined that 1,469 new multi-family units could be accommodated. The land surveyed included property designated Multi-family Residential on the General Plan Land Use Map that was either vacant or underutilized, which determined that 1,265 units can be accommodated within this designation. The survey also included property within the Village Specific Plan that, although, not specifically designated for residential uses, would permit multi-family uses and where multi-family development would be appropriate given the existing land use patterns within the specific plan area. This increased the number of potential multi-family units to 1,469. Table 15 shows that there are 76.96 vacant acres and 95.9 underutilized acres within the City that could accommodate 1, 469 multi-family units. Constraints such as topography and drainage courses were considered during the survey; therefore, the estimated number of potential multi-family units reflect these constraints

Additionally, although not included in the survey results, the commercial and industrial General Plan Land Use designations permit the establishment of up to three accessory residential uses per parcel. This means that within the five commercial land use designations (Commercial General, Commercial Recreation, Commercial Visitor, Commercial Services and Industrial), there is also the potential for residential units above or behind business on the same parcel. This policy provides an opportunity for the development of additional residential units, beyond that permitted by the zoning classifications and Village Specific Plan. In order to take advantage of this opportunity, Program 1.1.3 has been created to ensure that the General Plan continues to allow for accessory dwelling units in commercial designations.

Although a number of commercial uses such as bed and breakfast establishments, time-share condominiums, hotels and motels are conditionally allowed in the areas designated for multi-family development and even in some of the single family areas, these commercial uses do not have the potential to significantly reduce the total residential capacity of the City at build-out. This is because there is sufficient land within the City to accommodate an additional 1,469 multi-family units and 1,868 single family units and because up to three accessory residential units may be developed within land designated for commercial and industrial uses within the General Plan Land Use Map. In addition, at this time, the total residential capacity of the City far exceeds the capacity needed to meet the RHNA fair share requirement for new housing.

Table 15

Land Available for Multi-family Development

ZONING	VACANT ACREAGE	UNDERUTILIZED ACREAGE	NUMBER OF POTENTIAL UNITS
Multiple Family Residential	66.31	89.6	1,265
Village Specific Plan	10.65	6.3	20
Total	76.96	95.9	1,469

Source: City of Big Bear Lake Planning Division, February 2001

Table 16 shows the different land use designations within the City. This table shows anticipated density, acreage, number of units that each designation could support and the anticipated number of permanent residents. It is recognized within the table that Big Bear Lake is a resort community with many second homes that remain vacant throughout most of the year. Therefore, the population that each land use designation could generate has been adjusted to reflect the permanent population that resides in the City.

Table 16

Land Designated for Residential Use

LAND USE DESIGNATION	MAXIMUM PERMITTED DENSITY	NO. OF ACRES DESIGNATED	% OF RESIDENTIAL LAND	MAX. NO. OF UNITS	TOTAL PERMANENT RESIDENTS*
Rural Residential	1 unit per 2.5 acres	360 (includes 71.9 camp overlay)	13	144	180
Equestrian Estates (EE)	1 unit per acre	89.8	3	179	223
Single Family Residential-3 (SFR-3)	3 units per acre	262.8 (includes 12.3 acres camp overlay)	10	788	9851
Single Family Residential-4 (SFR-4)	4 units per acre	1,669.3	62	6,797	8,496
Multiple Family Residential	12 units per acre	331.9	12	3,982	4,977
Total	N/A	2,743	100	11,890	14,861

Source: City of Big Bear Lake Land Use Element, Table LU-4
*Based on 2.5 persons per dwelling unit at a 50% maximum permanent occupancy.

D. ENERGY CONSERVATION

The City of Big Bear Lake adopted the California Uniform Building Code in its entirety. The energy conservation measures required by the City are set forth in the Uniform Building Code.

Big Bear Electric Co. participates in the Low-Income Energy Assistance (LEAP) payments program providing lower energy rates to eligible households. To inform residents about this program, the electric company annually mails all customers a brochure and application form for LEAP with the monthly bill.

The County of San Bernardino Community Services Department administers a weatherization program with funding from both the federal government and several Southern California gas companies. Services provided include: attic insulation and venting, weather stripping, repair or replacement of windows and doors, if needed, and repair of combustion appliances. Low flow showerheads are also installed. An agency staff person, who lives in the mountain community of Twin Peaks near Big Bear Lake, processes applications. The work is performed by County weatherization crews.

V. CONSTRAINTS

A. GOVERNMENT CONSTRAINTS

1. Land Use Controls

Table 16 shows that if built out to maximum capacity, the land designated for multi-family development could support up to 3,982 units or about 33% of the potential 11,890 residential units. Table 15 demonstrates that there are approximately 172 acres available for multi-family development, including both vacant land and underutilized sites. This acreage can support an additional 1,469 multi-family units. The R-3 zone district allows for a limited number of commercial uses. These commercial uses have the potential to reduce the total residential capacity of the City at build-out. However, given the amount of acreage available for multi-family uses and that up to three accessory residential uses are permitted in the commercial General Plan Land Use designations, this is not considered a significant land use constraint. In addition, at this time, the total residential capacity of the City exceeds the capacity needed to meet the SCAG fair share requirement for new housing

All infrastructure needed to serve the sites that could accommodate the additional 1,469 units is available. The allowable density is 12 units per acre. Given that the City's Density Bonus Ordinance allows for a 100 percent density bonus, provided that units are being made available for affordable households, with development incentives, it is believed that this density is appropriate. Additional incentives for the development of affordable housing are proposed through Program H2.1.3 to make city-owned property for affordable housing; Program H2.1.4 where the City will apply for appropriate housing funds to assist in the development and preservation of units; and Program H2.3.1 to maintain the City's existing density bonus provisions.

Land Use Constraint and Proposed Mitigation

The City's Zoning Code does not identify areas where emergency shelters and transitional housing facilities can be built. Program H6.1.5 in the updated programs section proposes that emergency and transitional housing be conditionally permitted in multifamily residential zones and permitted in commercial zones as a principally permitted use. The City is currently updating its Development Code, which will include revisions to each zone district in the City. This update will include provisions for emergency shelters and transitional housing in these zone districts.

Development Standards

Table 16 shows that there are five different General Plan residential land use designations in the City of Big Bear Lake. Rural Residential allows one unit per 2.5 acres, Equestrian Estates allows one unit per acre, Single-Family Residential 3 (SFR-3) allows three units per acre, and Single-Family Residential 4 (SFR-4) allows four units per acre with a minimum lot size of 7,200 square feet. Multiple Family Residential zoning allows 12 units per acre with a density bonus of up to 100% for affordable housing. The development standards that govern single family and multi-family development have been in place since the 1960's, prior to the City's incorporation in 1980. Upon incorporation, the City adopted

the County of San Bernardino's Development Code, which has been revised from time-to-time by City ordinances. Residential development standards for both Single Family Residential (R-1) and Multiple Family Residential (R-3) zone districts are shown in Table 17.

Table 17

Residential Development Standards

	R-1	R-3
1. Setbacks A. Front Yard and Side Street Yard Setbacks 1. On Streets 40 feet wide or less: 2. On Streets greater than 40 feet wide:	1. 35 feet from centerline of street. 2. 15 feet from property line.	1. Same as R-1. 2. Same as R-1.
B. Interior Side Yard Setbacks	1. Not less than 10% of lot width, but no less than 3 feet and does not have to exceed 5 feet. Parcels created after January 19, 1969 shall have one side yard not less than 10 feet.	1. Same as R-1.
C. Rear Yard Setbacks	15 feet from property line	10 feet from property line
2. Building Coverage	40 percent of lot area	60 percent of lot area
3. Open Space	N/A	35 percent of lot area (may include natural opens space or landscaping)
4. Building Density	1 unit per lot of record	12 units per acre
5. Building Height	40 feet for primary structures	40 feet for primary structures
6. Parking	2 spaces	2 spaces per unit

The City's General Plan Community Design Element contains policies regarding design of single family and multi family residences. Policies relating to building materials, colors, and design have been established to promote the community's mountain character. Policies relating specifically to multi-family development have been established to provide a safe and pleasant living environment for residents and include policies relating to common open space, dispersed parking spaces in proximity to the units served, conveniently located trash enclosures, and placement of common use areas in visible areas to promote safety. These policies are provided in Appendix 2.

In additional to conventional residential buildings, other uses permitted in the multifamily residential zones are boarding and lodging houses, private schools, lodges and private clubs, philanthropic and charitable institutions, motels, mobile home parks and recreational vehicle parks, hotels and large scale housing projects. A large-scale housing project is a multi-family dwelling project of five units or more. Given that over 1,469 new multi-

family units can be accommodated at build-out this is not considered a constraint to meeting the City's housing requirements.

Effect of Development Standards on Housing Affordability

Big Bear Lake is a recreational community in which the dominant residential building type is the single-family house. In multi-family areas, the maximum density is 12 units per acre and developers of affordable housing may apply for a density bonus that could be a high as 100%, depending upon the project proposed. The chief constraint on the development of subsidized affordable housing is not land use controls but the lack of interest by nonprofit or for profit agencies in constructing and managing affordable housing in Big Bear Lake, and lack of available funds to subsidize such projects. (See section on non-governmental constraints).

Code Compliance

Code compliance activities within the City are intended to promote the safety and character of the City. The City includes approximately seven square miles. There are currently two code compliance officers responsible for code enforcement activities in the City. Therefore, code enforcement activities are primarily reactive. In the residentially designated properties, code enforcement housing efforts generally focus on overcrowding of private vacation home rentals and property maintenance. In the past, overcrowding of private home rentals has created noise, traffic and land use impacts to surrounding neighbors. However, a City ordinance adopted in 1999 requiring inspections, and more consistent monitoring of these units, has improved the conditions and operations of vacation rentals.

Development Impact Fees

The City first adopted development impact fees in 1985. The fee program was revised in 1991 in response to AB 1600. Since 1991, the fee program has been amended from time to time to reflect changing conditions and infrastructure needs. Most recently, the fee program has been the subject of a study to support revised fees in 2001, and the revised program and fee study will be the subject of public workshops and hearings in late 2001 through 2002. As drafted, the updated fee program will ensure that new growth will pay only its fair, or proportionate, share of the cost of the cost of off-site infrastructure and facilities needed to support new development. Tables 18 and 19 provide a breakdown of existing permit and fee costs for the development of a single-family house and multi-family development. Development impact fees are currently $539, but are proposed to be increased in 2002 based on the latest fee study.

The fee program is being re-evaluated and the update will consider the incorporation of development impact fees for roadways, drainage, and open space. Existing impact fees and any new fees established by the revised fee program may present a constraint to housing since it is anticipated that impact fees will increase. Although the City has already met its housing obligation, this may cay create a constraint to additional affordable housing development. Therefore, the City will create a housing program that will assist in the payment of development impact fees, for affordable units.

2. Parking Requirements

Parking requirements are the same for all types of residential development: two parking spaces per unit, regardless of the number of bedrooms in the unit. The General Plan encourages one of the spaces to be covered, either within a garage or carport; the other may be open. A builder proposing to reduce the number of parking spaces would have to apply for a variance; however, in the case of affordable housing, the City's density bonus ordinance contains provisions for granting additional land use concessions to affordable housing developers, which might include a parking reduction.

3. Infrastructure to Support Housing Development

According to the City's Land Use Element, most of the land within the City designated for single-family use has already been subdivided into buildable lots. Further, infrastructure such as streets and utilities are readily available to almost every lot in the City; therefore, availability of infrastructure is not considered to be a constraint to new housing development.

4. Development Costs for Valuation

Development costs have been provided for the City of Big Bear Lake. These costs are likely to be similar in the surrounding unincorporated communities because all these areas generally use the same contractors, building materials suppliers and construction labor force. Variation in housing costs in the various Bear Valley communities is largely due to differences in land prices.

The City's schedule of building costs for valuation is as follows:

Table 18

Schedule of Building Costs for Valuation, 2000 (Single Family Unit)

STRUCTURE COMPONENT	COST PER SQ. FT.	TYPICAL SIZE/SQ. FT.	TOTAL COSTS
Single Family Unit			
Residence	$ 90.60	2,000	$ 171,000
Garage	23.30	400	9,000
Porch	20.00	100	1,800
Deck	16.30	200	2,000
Total			$ 183,800
Multi-Family Unit			
Residence	$ 85.50	1,250	$ 106,900
Garage	22.50	220	4,950
Total			$ 111,850

Source: City of Big Bear Lake Division of Building and Safety

5. Fees and Exactions

The fees for a 2,000 square foot residential unit are $14,594.088 with the majority of the cost for water and sewer connections and school fees. The City also charges a developer fee of $539 per unit. Construction permit fees are based on valuation. Table 19 shows the costs for building permits and fees for a 2,000 square foot single-family dwelling unit. The building permit fee is based on the valuation schedule provided in Table 18. Table 20 shows the permit and fee costs for multi-family construction.

Table 19

Permit and Fee Costs for a 2,000 Square Foot Single Family Unit, 2000

Permit Costs (Building permit fees based on valuation--See Table 17)

$ 993.75	Base fee for first $100,000 of valuation
470.40	5.60 for each additional $1,000 of valuation up to $500,000
$ 1,464.15	

Building Permit Fees

$ 1,464.15	Building Permit Fee
951.70	Plan Check Fee (65% of Building Permit Fee)
159.00	Electrical Fee (.056 x habitable space + 23.50 issuance fee + 23.50 temporary power pole)
198.75	Approximate Plumbing Fee
66.10	Approximate Mechanical fee
18.38	Strong Motion Instrumentation Program Fee (.0001 x valuation)
25.00	Road Encroachment Fee ($25.00 per driveway cut)
48.00	Fire flow review
$ 2,931.08	

Development Fees

$ 2,833.00	Sewer Connection Fee (per each EDU; 1 EDU assumed)
4,611.00	Water Connection Fee
539.00	Developer Fee per unit (City development impact fee)
2,680 .00	School Fee ($1.34 per square foot x habitable space)
$10,663.00	

$13,594.08	Total Cost Permits and Fees.

Table 20

Permit and Fee Costs for a 1,250 Square Foot Multi-Family Unit

Permit Costs

Building permit fees based on valuation (See Table 17)

$ 993.75	Base fee for first $100,000 of valuation
66.20	5.60 for each additional $1,000 of valuation up to $500,000
$ 1,060.20	

Building Permit Fees

$ 1,060.95	Building Permit Fee
689.62	Plan Check Fee (65% of Building Permit Fee)
117.00	Electrical Fee (.056 x habitable space + 23.50 issuance fee + 23.50 temporary power pole)
198.75	Approximate Plumbing Fee
66.10	Approximate Mechanical fee
11.88	Strong Motion Instrumentation Program Fee (.0001 x valuation)
25.00	Road Encroachment Fee ($25.00 per driveway cut)
48.00	Fire flow review
$ 2,217.00	

Development Fees

$ 2,833.00	Sewer Connection Fee (per each EDU; 1 EDU assumed)
4,611.00	Water Connection Fee
539.00	Developer Fee per unit (City development impact fee)
2,680 .00	School Fee ($1.34 per square foot x habitable space)
$ 10,663.00	

$12,880.30	Total Cost Permits and Fees.

Total fee costs for single family and multi-family units are similar with much of the cost attributable to sewer, water and school fees. Since the City has met its fair share obligation, these do not appear to constrain housing development. Developer impact fees may increase based upon the fee study currently being undertaken. However, a program is being included that would provide for Agency assistance on impact fees for development of new affordable housing units.

6. Permit Processing

Permit processing for a single-family house requires an approximate four-week plan check period. Multi-family development is a two-stage process with a six to eight-week plot plan and design review application which is heard before the Planning Commission, followed by a plan check process that takes about four weeks.

7. Building Codes

The City has adopted the California Uniform Building Code without any additions or changes. Building permit fees are also based on the Uniform Building Code. These code requirements are the same as those in the unincorporated areas surrounding Big Bear Lake.

8. Circulation and On and Off Site Improvements

Most of the land within the City of Big Bear Lake has been divided into buildable lots and the majority of streets are already dedicated but not all streets are paved. Builders are required to provide curbs and sidewalks in areas where there are already curbs and sidewalks. In areas of the City where there are neither curbs nor sidewalks and curbs and sidewalks are not planned for, developers of individual parcels are generally not required to provide this amenity.

Most parcels in the City are readily served by water, power, gas and sewer facilities. There is a substantial fee for power and sewer hookups. Waste disposal is conducted through a contract between the City and Big Bear Disposal. Natural gas in supplied by Southwest Gas Corporation. Electricity is provided by Bear Valley Electric Service, a wholly owned subsidiary of Southern California Water Company. Telephone service is provided by Verizon (formerly GTE). Big Bear Lake has had cable television service since the early 1960's. The City is currently considering needed public access and public service provisions for future contracts with cable providers. The City does not currently have a coordinated system of drainage for storm water and is in the process of developing a drainage master plan. The City is working with seven other cities and three unincorporated areas to develop a water diversion and recycling program. There is no evidence that the minimal requirements for on and offsite improvements are a constraint on housing development.

9. Access to Housing Assistance

The City of Big Bear Lake is a small city with a permanent population of only 5,438 people. Its allocation of Community Development Block Grant (CDBG) funds is only about $37,000 per year. The City does not directly control these funds. Instead the Big Bear Lake City Council makes recommendations for the expenditure of this money, but the funds are administered by the Economic and Community Development Department of the County of San Bernardino (ECD). The City does have a redevelopment agency with an annual housing set-aside, but all other housing programs, including HOME, are administered by the County. The offices of ECD are an hour away in the City of San Bernardino as are the offices of many of the service agencies that might refer residents to these programs. It is therefore difficult for residents of Big Bear Lake to obtain information about housing programs.

The City cannot remove this constraint through local ordinance. However, it can ensure that residents have access to information about housing programs by providing notices and links on the City's website and distributing literature informing residents about housing programs. Additionally, it can help coordinate the development of housing and services to homeless persons by assigning a City staff person as a housing/homeless coordinator.

The City can further facilitate the provision of housing services by taking an active role to ensure that both public and nonprofit agencies have appropriate office space in the City of Big Bear Lake. There is land available within appropriate General Plan land use designations that will accommodate these uses, as principally permitted uses. In order to facilitate the establishment of these agencies, the City will actively assist them in site selection and seek the cooperation of the private sector in the provision of social service office space.

a. Housing Information

The City could post notices about housing programs and links to County departments on the City's website. The City could also periodically provide press releases or stories to the local newspapers about housing assistance and provide brochures for the county's first-time homebuyers program and the HAP program to local real estate offices.

b. Program Coordination

The City will assign City staff to work with the City's homeless service providers in the development of an emergency shelter and a transitional housing program.

B. NONGOVERNMENT CONSTRAINTS

1. Land and Construction Costs

Land costs vary considerably in Big Bear Lake. A survey of 54 vacant parcels zoned for residential use sold between April and September 2000 shows that most land was priced between $1.68 and $9.00 per square foot with an average price of $4.79 per square foot. At that price, a 7,200 square foot lot in the SFR-4 zone would cost $34,488. Thirteen parcels were priced between $14.20 and $111.11 per square foot with an average price of $40 per square foot. At that price a 7,200 square foot lot would cost $288,000. It is important to note that land with lake views is more expensive, and that residential land available for affordable units exists in other areas of the city.

Construction costs (see Table 18) are $90.60 per square foot according to the City's Department of Building and Safety. Construction costs are similar throughout the mountain area since construction projects inside and outside the City use the same contractors, building materials suppliers and labor force.

Construction costs combined with land costs are not constraining housing development since units continue to be built in Big Bear Lake but they do affect the affordability of new housing in Big Bear Lake. In response, the City used redevelopment set-aside funds to construct 73 affordable senior units and will continue to use set-aside funds for affordable transitional or permanent housing. In order to mitigate the constraint on housing affordability imposed by land and building costs, the City's density bonus ordinance provides up to a 100% density bonus and possible other land concessions for affordable housing construction.

2. Finance

Finance for housing purchase and housing construction appears to be readily available in the City of Big Bear Lake. There are a number of banks and mortgage lenders located in the community and additional loans can be accessed on the Internet. Internet mortgage sites make it possible for borrowers to compare rates and shop for the best terms. As an example of the loans available to home buyers in the City of Big Bear Lake, first-time homebuyer programs offered by a local bank include a slightly reduced interest rate, no points or origination fee, a $2,000 grant to cover closing costs and a $5,000 down payment assistance loan that is forgiven after five years. Buyers are only required to provide a down payment of between 1% and 3% of the selling price. The San Bernardino County Department of Economic and Community Development also offers a first-time homeowner program and down payment assistance. Six banks throughout the County process applications for these loans.

3. Market Preference for Single Family Homes

The single family home appears to be the preferred housing type in Big Bear Lake. The market is producing only a few new multi-family units. According to the California Department of Finance, between 1990 and 2000 no new condominium units were constructed in Big Bear Lake. As long as resale single-family homes remain affordable to

moderate-income homebuyers, there is not likely to be much demand for condominiums. However, in the next planning period, 2006-2010, rising prices of scare single family building sites may begin to create a demand for multi-family housing.

A preliminary analysis of the results of a survey of community needs conducted by the Bear Valley Unified School District indicates that large low-income families are not able to find affordable rentals large enough to accommodate their families. Most rentals in Big Bear Lake are single-family homes; with the average rent for a three-bedroom unit at $750 per month, the rent for larger home is too high for families earning less than $27,000 ($12.98 per hour) per year.

According to an August 8, 2000, article in the Los Angeles Business Section, there is little apartment construction in Riverside and San Bernardino Counties. The article quotes an explanation from Keith Guericke, President of Essex Property Trust which owns 7,071 apartment units in Los Angeles, Orange and Ventura counties, "We think that's [San Bernardino and Riverside Counties] a very difficult market for apartment construction because single-family homes are so inexpensive, and that puts a cap on what kind of rents you can charge . . . The land is cheaper there but construction costs are still high, so it's difficult to make the economics work."

4. Capacity for Affordable Housing Construction

While several nonprofit organizations that provide services to special needs groups have developed transitional housing in the City of Big Bear Lake, there are few if any nonprofit organizations in the community or surrounding areas capable and willing to develop and operate affordable multi-family rental housing. Larger regional organizations that build and operate affordable housing are generally unwilling to take on projects smaller than 60 units or located far from existing bases of operation. However, if a local social service agency or church-based organization were willing to sponsor a nonprofit housing development, that organization could work with a development consultant, a local developer and property management organization to create and manage a small affordable housing project. Such a project could be funded with a combination of redevelopment funds, state bond and tax credit funds, and grant money from a program such as the Affordable Housing Program of the Federal Home Loan Bank.

VI. PRESERVATION OF UNITS WITH EXPIRING SUBSIDIES

There are no housing developments in the City of Big Bear Lake with expiring subsidies. The only assisted housing in the community is a development of 73 senior units now under construction and financed by the Big Bear Lake Improvement Agency. These units have 30-year rent subsidies for low to moderate-income senior renters with an option for a 10-year extension of the affordability covenants.

VII. GOALS, OBJECTIVES, POLICIES AND PROGRAMS 2000 - 2005

GOAL H1 PROVIDE ADEQUATE SITES

Policy H1.1

Ensure total dwelling capacity equal to new construction need and provide sites suitable for a variety of types of housing for all income levels, including rental housing and manufactured housing.

Program H1.1.1

Provide adequate sites for the development of at least 102 new housing units for all income levels between 2000 and 2005.

Responsible Agency: Planning Division

Timeline: Ongoing

Program H1.1.2

On the General Plan Land Use Map, designate sufficient residential land to accommodate 7,908 single-family residential and 3,982 multiple family residential units at General Plan build-out.

Responsible Agency: Planning Division

Timeline: Ongoing

Program H1.1.3

The City shall continue to permit accessory residential uses within the commercial land use designations of the City's General Plan Land Use Map, allowing up to three units per parcel, in order to provide additional housing opportunities.

Responsible Agency: Planning Division

Timeline: Ongoing

Program H1.1.4

The City shall conduct a focused survey of land available for multi-family development to determine the number of potential units that can be supported within the City. Should the survey determine that there is insufficient land available for multi-family development, the City will evaluate its Development Code and Zoning Map to assess whether it is appropriate for additional land to be designated for multi-family development, or whether an additional zone classification, strictly dedicated to multi-family development is necessary.

Responsible Agency: Planning Division

Timeline: 2005

Program H1.1.5

The City shall adopt and implement a Mobile Home Conversion Ordinance to assist in the relocation of residents of existing mobile home parks in the event of closure or changes in use.

Responsible Agency: Planning Division

Timeline: Adopted in 2001.

Policy H1.2

Eliminate barriers to housing development for all income groups arising from incompatibility of the zoning code and the general plan or unnecessarily lengthy, ambiguous or conflicting requirements of the development review and permitting process.

Program H1.2.1

Revise the Development Code to conform to the General Plan and to include general procedures on the development review process. (See Policy L3.1 and Program L3.3.1 in the Land Use Element)

Responsible Agency: Planning Division, Planning Commission, City Council

Timeline: December 2002 - Development Code adoption and Zoning Map Update

Program H1.2.2

Revise the Development Code to establish procedures for the continued use and/or expansion of legally non-conforming single and multiple family residential uses.

Responsible Agency: Planning Division, Planning Commission, City Council

Timeline: December 2002 and Ongoing

GOAL H2 ASSIST IN THE DEVELOPMENT OF ADEQUATE HOUSING TO MEET THE NEEDS OF LOW-AND MODERATE-INCOME HOUSEHOLDS

Policy H2.1

Utilize federal, state, and local housing subsidies to produce affordable housing.

Program H2.1.1

Complete the 73-unit senior housing facility funded with redevelopment set-aside money, and receive annual report from developer to ensure continue compliance with the recorded covenants and restrictions.

Responsible Agency: Improvement Agency, Building and Safety and Finance Divisions

Timeline: Completed and fully occupied 2001

Program H2.1.2

The City shall send out a Request for Proposals in order to seek proposals from private developers and other agencies to provide very low to moderate-income housing, including large family housing, and shall cooperate and assist in the development of such housing, through streamlining the application process, supporting density bonuses and providing financial assistance, which may include the use of redevelopment funds.

Responsible Agency: Planning Division/Improvement Agency

Timeline: Seek proposals in 2003

Program H2.1.3

The City shall make available approximately .29 acres of city-owned property zoned Multiple Family Residential available for the development of a minimum of three low to moderate-income housing units. The City will support additional units through a density bonus as appropriate for the site. In addition, as funds permit, the City may consider assistance through additional land acquisition and assembly.

Responsible Agency: Planning Division/Improvement Agency

Timeline: December 2003

Program H2.1.4

The City shall investigate the various housing programs/funds available from federal, state and local agencies and apply for funds, such as HOME and CDBG, in order to assist in the implementation of the Housing Element through the preservation of existing affordable housing, development of new affordable units and homeownership for affordable households. In accordance with Programs H2.2.1 and H4.2.1, the City will advertise County programs quarterly in the local newspaper and on local television as a public service announcement. The City will distribute this information to the Board of Realtors and make applications available at City Hall.

Responsible Agency: Planning Division/Improvement Agency

Timeline: 2003 and annually thereafter

Policy H2.2

Facilitate access to housing assistance programs for first-time homebuyers.

Program H2.2.1

The County offers below-market interest rate loans for home purchase to eligible families. These loans are administered by a number of banks. Assistance with down payment and closing costs is also available under some circumstances. Establish a notice on the City's website to inform the public about the affordable homeownership programs of the County of San Bernardino Department of Economic and Community Development. Provide a link to the Department's website to facilitate access to the information and update as necessary. Advertise the information quarterly in the local newspaper and on local television as a public service announcement. The

City will distribute this information to the Board of Realtors and make the applications available at City Hall.

Responsible Agency: Planning Division and City Webmaster

Timeline: Post notice and establish link by March 2002. Revise periodically, as needed.

Program H2.2.2

The City shall assign a part-time staff person to compile information on available County of San Bernardino housing programs and actively disseminate the information to members of the public.

Responsible Agency: Planning Division/Improvement Agency

Timeline: January 2002 and ongoing

Program H2.2.3

First Time Homebuyer Program: This program of the San Bernardino County Department of Economic and Community Development is funded by mortgage revenue funds. The program provides below-market interest rate loans to qualified first-time homebuyers. Households with incomes below 80% of the County median income are eligible for the program. Applications are made directly to participating lenders. A list of these lenders can be found on the County's website.

Responsible Agency: San Bernardino County Department of Economic and Community Development

Timeline: Ongoing

Program H2.2.4

Homeowner Assistance Program: This program, funded by federal HOME funds, provides down payment assistance and closing costs to first time homebuyers earning between 60% and 80% of County median income. It is administered by the same lenders that process the first time homebuyers loan program.

Responsible Agency: San Bernardino County Department of Economic and Community Development.

Timeline: Ongoing

Policy H2.3

Provide regulatory concessions and incentives for the development of affordable housing.

Program H2.3.1

Continue to implement the City's Density Bonus ordinance where appropriate to facilitate the development of affordable housing for very low- and low-income households, which is also restricted for occupancy by affordable households through recorded covenants and restrictions. In accordance with the provisions of the ordinance, provide incentives to developers, which may include, but not be limited to, reduction in development standards such as parking or setback requirements; up to a 100% density bonus; or other financial incentives such as, but not limited to, the use of low-to-moderate set-aside funds to assist with the payment of development impact fees. Typically, a project qualifies for a density bonus when the developer proposes to make units available for affordable households. The number of density units allowed is based upon the number of units that the developer proposes to provide for affordable households.

Responsible Agency: Community Development, Planning Commission, and City Council
Timeline: Ongoing

Policy H2.4

Assess the needs for affordable housing of various groups in the community.

Program H2.4.1 Housing Needs Survey

Conduct a survey of the housing needs of the temporary workers who work at the City's two ski resorts to determine the need for special programs to accommodate this population. Prepare a survey form and ask the personnel departments of each resort to administer it to their employees. (Bear Mountain Resort already collects this information.)

Responsible Agency: Planning Division

Timeline: Prepare survey to be administered in Winter 2002.

Program H2.4.2

If the temporary worker survey indicates a need for better housing solutions for temporary workers, convene a task force of managers of seasonal rental properties, City officials, ski resort management, and representatives of the temporary work force to study possible solutions and make recommendations.

Responsible Agency: Planning Division

Timeline: Convene Task Force in 2002 and make recommendations by June 2003

GOAL H3. ADDRESS AND WHERE APPROPRIATE AND LEGALLY POSSIBLE, REMOVE GOVERNMENTAL CONSTRAINTS

Policy H3.1

Continue to assist departments of the county government and nonprofit agencies that provide essential social services inform obtaining appropriate office space in Big Bear Lake.

Program H3.1.1

Assess the effects of the provisions of the Development Code on the ability of government and nonprofit agencies to obtain adequate and appropriate sites for the provision of social services, including housing assistance, and take appropriate action, which may include revising the Development Code to specify the zone districts in which these uses are permitted and assigning a staff member to act as an ombudsman.

Responsible Agency: Planning Division

Timeline: Development Code Update December 2002; staff member assigned.

Program H3.1.2

Assign a City staff person to act as an ombudsman to assist county government departments and social service agencies in site location and application processing, in order to streamline the entitlement process.

Responsible Agency: Planning Division

Timeline: 2001, staff member assigned.

Program H3.1.3

The development impact fees shall be updated. In the event that amount of development impact fees are increased, the City shall establish a program to provide full or partial assistance with fees using redevelopment set-aside funds as an incentive to promote development of affordable units, provided that appropriate covenants are obtained to ensure the availability of affordable housing.

Responsible Agency: Planning Division/Improvement Agency

Timeline: 2002 and Ongoing

GOAL H4 CONSERVE AND IMPROVE THE CONDITION OF THE EXISTING AFFORDABLE HOUSING STOCK

Policy H4.1

Use tax increment funds from the Redevelopment Housing Set-Aside to provide rehabilitation loans and/or grants to low- and moderate-income homeowners and to owners of rental properties who agree to keep their rents affordable for a specified period of time.

Program H4.1.1

Develop a rehabilitation loan and/or grant program for single and multi-family rental properties as described in the Improvement Agency Five-Year Plan. Consider contracting with a local bank to administer the program. As appropriate, develop loan documents, procedures for reviewing and approving loans and construction draws and a process for monitoring compliance with affordability restrictions.

Responsible Agency: Big Bear Lake Improvement Agency

Timeline: Conduct financial feasibility study in 2002. Based on findings of the study develop a loan and/or grant program by 2003.

Policy H4.2

Facilitate access to information about housing repair and rehabilitation programs operated by the San Bernardino County Department of Economic and Community Development.

Program H4.2.1

Use the City's website to provide information on the housing repair and rehabilitation programs provided by the San Bernardino County Department of Economic and Community Development. Provide a link to that Department's web page on the City website so that City residents can easily find the information. Advertise the information quarterly in the local newspaper and on local television as a public service announcement. The City will distribute this information to the Board of Realtors and make the applications available at City Hall.

Responsible Agency: Planning Division and City Webmaster

Timeline: Set up notice and links by March 2002. Revise periodically, as needed.

Program H4.2.2

As funds permit, provide a grant to a nonprofit community organization to assist in funding an outreach worker to inform residents of Big Bear Lake about available housing programs, such as the first time homebuyer programs, rehabilitation loan programs, weatherization program, senior loan program and the Section 8 tenant assistance program.

Responsible Agency: Community Development

Timeline: Coordinate with non-profit agencies June 2002; Fund program by July 2003, as feasible.

Program H4.2.3

Single Family Home Improvement Loan Program: The Single Family Home Improvement Loan Program, operated by the County of San Bernardino Department of Economic and Community Development, serves County homeowners earning 80% or less of the area median income. The program provides home rehabilitation loans at or below market rates for a variety of home repairs and additions. To qualify, owners must have occupied their homes for at least one year and houses must be a minimum of eight years old. Information about this program is available on the County website.

Responsible Agency: San Bernardino County Department of Economic and Community Development

Timeline: Ongoing

Program H4.2.4

Senior Home Repair Program: The Senior Home Repair Program operated by the San Bernardino County Department of Economic and Community Development serves homeowners age 60 and older who earn 80% or less of area median income and homeowners who are permanently disabled. This program provides a one-time grant to help correct code violations and make improvements for handicapped access.

Responsible Agency: County of San Bernardino Department of Economic and Community Development

Timeline: Ongoing

Program H4.2.5

Weatherization Program: The County of San Bernardino Community Services Department administers a weatherization program with funding from both the federal government and several Southern California gas companies. Services provided include: attic insulation and venting, weather stripping, repair or replacement of windows and doors if needed and repair of combustion appliances.

Responsible Agency: County of San Bernardino Community Services Department.

Timeline: Ongoing.

Program H4.2.6

Determine which local non-profit agencies provide housing assistance in the form of simple repairs and maintenance, and refer low to moderate homeowners needing such assistance to those organizations.

Responsible Agency: Community Development Department

Timeline: July 2002

Policy H4.3

Ensure the safety of short-term tenants and the tranquility of residential neighborhoods by regulating short-term private home rentals (less than 30 days).

Program H4.3.1

Continue the City's existing program to inspect and license private homes that are rented for periods of less than 30 days. Require property owners who use their homes for short-term rentals to obtain a transient occupancy permit and a business license, and complete a home inspection conducted by a contracted inspector.

Responsible Agency: Finance Division and Code Enforcement

Timeline: Ongoing

GOAL H5 PROMOTE EQUAL HOUSING OPPORTUNITY

Policy H5.1

Facilitate access to fair housing services.

Program H5.1.1

Request the Inland Fair Housing and Mediation Board, the County contractor for fair housing services, to conduct a workshop on fair housing for local realtors, property managers and property owners. Cooperate with Inland in finding space for the workshop and publicizing the event.

Responsible Agency: Planning Division and City Webmaster

Timeline: 2002 and periodically thereafter

Program H5.1.2

Post information on fair housing on the City website. Provide a link to the web page of the Inland Fair Housing and Mediation Board. Advertise the information quarterly in the local newspaper and on local television as a public service announcement.

Responsible Agency: Planning Division and City Webmaster

Timeline: Post information and provide link by June 2001.

GOAL H6 PROVIDE HOUSING FOR PERSONS WITH SPECIAL NEEDS INCLUDING HOMELESS PERSONS

Policy H6.1

Provide leadership and coordination for the development of shelter and housing services for homeless persons in Big Bear Lake.

Program H6.1.1

Survey all agencies providing social services in Big Bear Lake to assess the need for emergency transitional and affordable permanent housing.

Responsible Agency: Big Bear Lake Improvement Agency

Timeline: 2002

Program H6.1.2

In accordance with the Improvement Agency's Five-Year Implementation Plan, utilize the housing set-aside to assist in funding affordable permanent housing in partnership with a private developer or other approved agency. In addition to the costs of acquisition, new construction or rehabilitation expenses, funded expenses could also include pre-development consulting for site identification, feasibility analysis, phase one environmental assessment and applications for private and public finance.

Responsible Agency: Big Bear Lake Improvement Agency

Timeline: 2004

Program H6.1.3

Once a plan to develop affordable permanent or transitional housing has been developed, apply for federal, state and county housing subsidy funds as appropriate and available.

Responsible Agency: Big Bear Lake Improvement Agency

Timeline: 2004

Program H6.1.4

As funds permit, provide a grant to a non-profit organization to assist in funding an outreach work to be a liaison with Big Bear Lake homeless service providers, coordinate with the San Bernardino Homeless Coordinator, help establish a local coordinating group for homeless agencies and assist nonprofit agencies in the City of Big Bear Lake to apply for and develop an emergency shelter and transitional housing project.

Responsible Agency: Community Development

Timeline: 2003

Program H6.1.5

The City shall amend its Development Code to permit the construction and/or operation of emergency shelters and transitional housing for homeless persons as conditionally permitted uses in multi-family residential zones and as principally permitted uses in commercial zones and assign a staff member to assist in the entitlement process for such projects.

Responsible Agency: Community Development

Timeline: Revise Development Code by December 2002

Program H6.1.6

Section 8 Rental Assistance Program: Ensure access to the Section 8 Rental Assistance program operated by the Housing Authority of the County of San Bernardino by assisting the agency with outreach whenever the Section 8 waiting list is opened. The Housing Authority maintains a waiting list for its 7,000-rental assistance vouchers provided under a number of programs. The waiting list currently has 5,000 names and the Authority is planning to open the waiting list in the next 12 months. The City shall work with the Housing Authority to ensure that all eligible households in the City who might need housing assistance are notified when the waiting list opens so they can choose to sign up. The City shall post the phone number of the Housing Authority and its website address on the City's website so that families needing housing assistance can contact the Authority, and advertise this information in the local newspaper and on local television as a public service announcement. The City will distribute this information to the Board of Realtors and make the applications available at City Hall.

Responsible Agency: Planning Division and Webmaster

Timeline: March 2002 and revise periodically as needed.

Program H6.1.7

Senior Repair Program: Disseminate information about the San Bernardino County Senior Repair Program that provides funds for repairs and accessibility modifications for low and moderate-income senior and disabled households.

Responsible Agency: Planning Division and City Webmaster

Timeline: Post notice and link by March 2002 and update as necessary.

Policy H6.2

Promote the development of permanent housing to meet the needs of very low-income large families in Big Bear Lake.

Program H6.2.1

The City shall send out a Request For Proposals in order to seek a developer willing to develop large family units affordable to households earning 50% or less of the median income through various incentives including, but not limited to, streamlining the permit process; utilizing redevelopment funds to assists in the payment of permit fees, development impact fees and/or land costs; and supporting a density bonus to allow for additional units.

Responsible Agency: City shall send out RFP in 2003

Timeline: 2003

Program H6.2.2

The City shall review existing codes and ordinances and revise as appropriate to bring into compliance with state and federal regulations regarding disabled access.

Responsible Agency: Building and Safety and Planning Divisions

Timeline: 2004

VIII. QUANTIFIED OBJECTIVES 2000 - 2005

Table 21

Quantified Goals New and Rehabilitated Housing

Income Level	SCAG 5-Year Goal	Big Bear New	Big Bear Rehab	Housing Type	Funding Source
Very Low	28	63		Subsidized Senior Housing	Big Bear Lake Improvement Agency
			5	Emergency Shelter and Other Special Needs	Big Bear Lake Improvement Agency
			5	Weatherization or Senior Repair Program	
Low	18	9		Subsidized Senior Housing	Redevelopment Housing Set-Aside
			15	Rehab Loans	San Bernardino County
			10	First-time homebuyer program	
			25	Rehab Loans w/ long term affordability restrictions	Big Bear Lake Improvement Agency
			5	Senior Repair Program	
Moderate	16	2		Subsidized Senior Housing	Redevelopment Housing Set-Aside
High	41	250		Single Family	Market
Total	102	324	55		379

The 73 low-income senior units produced between 1998 and 2000 meet the City's fair share obligation for very low and low-income units for 2000-2005. The market will provide new units for households earning incomes higher than 120% of the County median income. In order to meet the needs of households earning between 8% and 120% of County median income, the City has provided adequate sites zoned for multi-family construction. Although estimated construction costs are now $91.90 per square foot, condominium or apartment units affordable to moderate-income households could be constructed on parcels zoned for multi-family development. These units could be made more affordable to moderate income households by first-time homebuyer programs offered by local banks using both private and public sector funds. There are also a number of vacant sites in an area of the City previously subdivided into small lots (2,500-5,000 square feet), which are available for development of entry-level housing units.

IX. FINANCIAL RESOURCES

Table 22

Financial Resources for Housing 2000 - 2005

Source	Annual Amount	Amount over Five Years
Big Bear Lake Improvement Agency	$ 47,000 in 2001 77,000 in 2002 126,000 in 2003 157,000 in 2004 160,000 in 2005	$ 567,000 in 5 years or 1.8 million bond in 2004-2005
CDBG--expended on services and service facilities	$37,000	5 x $37,000
San Bernardino County HOME funds	depends on applications from Big Bear residents	
San Bernardino County Mortgage Revenue Bond funds	depends on applications from Big Bear residents	
San Bernardino County ESG (spent on cold wet weather program)	0	0
State of California Program Funds, Department of Housing and Community Development		depends on annual allocation; up to $650 million may be approved

SOURCES

Janet Anderson, Human Resources Department, Big Bear Lake Mountain Resort
Phil Mosley, City of Big Bear Lake, Department of Building and Safety
Connie Chambers, County of San Bernardino Department of Economic and Community Development
Brian Pickering, San Bernardino County Statistical Research
Mary Potter, Housing Authority of the County of San Bernardino
Heidi Earls, San Bernardino County Human Services System
Caroline de Bevick, San Bernardino County Community Services Department
Susan Huskey, Family Resource Center, Big Bear Lake
Ken Hare, Eternal Light Ministries, Big Bear Lake
Janet Trott, DOVES of Big Bear Valley, Inc.
Donna French, Operation Breakthrough, Inc., Big Bear Lake
Social Security Office, Redlands, California
Craig Murray, Property Owner
Mountain Meadows Senior Housing, Management Office

APPENDIX

A-1 Affordable Housing Programs

A-2 General Plan Community Design Element Policies relating to single family and multi-family development

APPENDIX 1

SAN BERNARDINO COUNTY AFFORDABLE HOUSING PROGRAMS

The San Bernardino County Housing Development Division administers four different programs housing programs including three that could be used to create or acquire affordable housing in the City of Big Bear Lake. The San Bernardino County Housing Authority administers the Section 8 Rental Assistance Program.

1. Single Family Mortgage Revenue Bond Program

This program serves eligible households throughout the County who are first time homebuyers. The program provides below-market loans at 7.29% to eligible households. Households apply directly to participating lenders who are listed on the County of San Bernardino web page at www.sbcounty.gov/ECD/HOUSING. Income limits change from year to year. In the year 2000, income limits are $50,000 per year for a one to two-person family and $57,500 per year for a three or more person family. Prices for homes may not exceed $149,599 for a new house and $160,249 for a resale house.

2. Housing Assistance Program

Households with incomes below 80% of the County median income may also be eligible for down payment and closing cost assistance through the County's Homeownership Assistance Program (HAP). Most of the participating lenders also process applications for the HAP program.

3. Multi-family Mortgage Revenue Bond Program

The Multi-Family Residential Rental Housing Revenue Bond Program assists developers of rental units by providing financing for acquisition and new construction or rehabilitation of multi-family housing developments. A specified number of the units must remain affordable to eligible households for a specified period.

4. Senior Repair Program

The Senior Home Repair Program serves homeowners 60+ years of age earning 80 percent or less of the area median income level established by HUD, or homeowners who are permanently disabled. This program provides a one-time grant in the form of labor and materials to help correct code violations and/or health and safety problems.

5. Section 8 Rental Assistance Programs

The Housing Authority of the County of San Bernardino provides Section 8 rental assistance vouchers under a number of programs including Shelter Plus Care for permanently disabled homeless persons. The agency has 7,000 vouchers. The waiting list, which was last opened in

1998, has 5,000 names. The agency is planning to open the waiting list sometime in the next 12 months.

NEW STATE FUNDS FOR HOUSING

California's legislature and governor have approved $650 million for affordable housing including $280 million for affordable rental housing, $45 million for homeless, $100 million for home ownership and $110 million for incentives for localities to increase housing production. The California Department of Housing and Community Development (HCD) will periodically issue Notices of Funding Availability (NOFA's) to expend these funds on qualifying projects. These NOFA's and other information about state housing programs are posted on the HCD website at www.hcd.ca.gov.

APPENDIX 2

GENERAL PLAN POLICIES RELATING TO SINGLE FAMILY AND MULTI- FAMILY DEVELOPMENT

GOAL CD 6

Ensure a **functional and safe living environment** for all residents of Big Bear Lake.

Policy CD 6.1

Development in single family residential areas should ensure that each legally-created lot is buildable, that lots and buildings are designed to ensure ease of access, privacy, fire safety, and adequate parking, and that housing meets a minimum standard of construction, through conformance to applicable policies in this element in addition to the following measures:

a. Adequate building setbacks should be required on residential lots to ensure privacy for each residence, while allowing for a reasonable building envelope on legal existing substandard lots.

b. The creation of flag lots may be allowed only when it can be determined that each resulting lot will meet the minimum lot requirement of the zone exclusive of the "flag" portion of the lot; that creation of a flag lot is necessary to minimize site grading, preserve a natural feature or amenity or provide some other benefit; that the resulting lot configuration is not detrimental to the surrounding neighborhood; and that adequate emergency access may be provided to all resulting lots.

c. Grading on single-family lots should not adversely impact adjacent residential lots through creation of visually obtrusive retaining walls, diversion of drainage onto adjacent lots, obstruction of solar access or other impact.

d. For equestrian lots, adequate setbacks should be maintained for animal enclosures to avoid adversely impacting adjacent properties.

e. The height and bulk of single family residences should be in proportion to the size of the lot; variances for setbacks and height should not be granted simply to allow construction of houses exceeding the floor area which can suitably be supported by the lot.

f. Single family homes on sloping lots should conform to the natural grade through multiple levels or other means as appropriate; residential development on slopes over ten (10) percent will be subject to design review.

g. All new single family residences, including manufactured homes and mobile homes, shall be constructed on a permanent foundation and shall use roofing and siding materials similar to and compatible with other residences in the neighborhood; use of eaves is strongly recommended, and at least one covered parking space should be provided.

h. Second units on single-family lots, such as dependent housing units, should be constructed of the same materials and be similar in architecture and design to the primary unit.

i. Colors used for homes within single family residential designations should conform to the color guidelines contained in this element.

Policy CD 6.2

Multiple family housing should provide a safe and pleasant living environment for residence and should be integrated with surrounding neighborhoods to enhance a sense of community, through conformance to applicable policies in this element in addition to the following measures:

a. Parking areas should be designed so that vehicle headlights are screened from adjacent on-site or off-site residences, through use of landscaping, low profile walls, grade differential or a combination of these and other factors, as appropriate.

b. Common open space areas should be placed so as to be visible from building entrances, windows of adjacent residences and public streets, to increase visibility for security purposes.

c. Long, unbroken parking drives or large, undivided parking lots are discouraged in favor of dispersed parking courts placed near the units they serve. Parking spaces should be visible from and conveniently located near the units which use them.

d. An adequate number of trash enclosures should be conveniently located throughout the development and should be constructed with a walk-in entrance as well as solid metal or wood gates for ease of use by all residents.

e. A minimum of two means of ingress and egress should be provided, except for smaller projects where emergency access is determined to be adequate.

f. For gated communities, adequate stacking room and parking stalls should be provided outside of the gates, to eliminate queuing of vehicles onto public streets. Internal stacking should not interfere with circulation on the site. Public safety officers should be granted access to gated communities.

g. Dwelling units should be oriented to focus on good views.

h. Drive aisles should be treated like a streetscape, with parkway trees and landscaping provided.

i. Private open spaces provided for individual units should be contiguous to the units they serve and screened from public views.

j. Common use areas should be located for residents' safety and convenience; for example, laundry areas should be located near children's play areas, to provide for visibility by caretakers.